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THE UNIVERSITY OF ALBERTA

ACTOR-OBSERVER DIFFERENCES IN CAUSAL ATTRIBUTION AND SANCTIONING EVALUATION

by

(C) TAMARA JOCELYN FERGUSON

A THESIS

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "Actor-Observer Differences in Causal Attribution and Sanctioning Evaluation".
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This dissertation is dedicated to my parents,

Harlan and Betty Sutherland,

for their unfailing support, love, and encouragement.

Abstract

This dissertation examined the link between causal attributions for, and sanctioning evaluations of, actors' success and failure on an interpersonal task. In Study 1, 110 (58 males, 52 females) college students were randomly assigned to one of eight conditions of a 2 (actor vs. observer perspective) X 2 (public vs. private evaluation context) X 2 (causal attribution judgments preceded vs. followed by sanctioning assessments) factorial design, in which the outcome was always failure. In Study 2, 212 (104 males, 108 females) college students were assigned to one of 12 conditions of a 2 (actor vs. observer perspective) X 2 (success vs. failure outcome) X 3 (high vs. low vs. no task difficulty information provided) factorial design, in which the evaluation context was always public. The client-therapist paradigm was used in both experiments, in which the actor counselled a presumed client, while an observer viewed the client-therapist exchange. Measures of personal and situational attribution, ascriptions of credit/blame, perceptions of reward deservingness, and decision-time were included in both studies.

The results of the first study showed that actors relative to observers accepted less personal causal responsibility, less blame, and recommended awarding themselves more money for failure when these evaluations

were public rather than private. The opposite pattern of results was found in the private condition. The results of the first study, a pilot study, and a replication experiment (n = 28) indicated that the effects of evaluation context were not due to concerns for accuracy, cautiousness, or modesty. The replication experiment also confirmed the idea that actors and observers experience difficulty in the assuming the role of their counterpart and that observers' judgments may have been affected by how they thought actors would respond.

The results of the second study replicated those found in Study 1 under public conditions. Actors, relative to observers, accepted more personal causal responsibility and credit for success than for failure. Low task difficulty information reduced the extent to which actors made self-serving assessments of their success and failure. However, actors' judgments reflected the perception that success was improbable, whereas observers' judgments reflected the perception that success was probable. Observers also evaluated actors more harshly than was expected on the basis of the provided task difficulty information.

Both experiments indicated strong support for the link between causal attribution and sanctioning evaluation, even within an ability-based paradigm. Observers' harsh

judgments indicated a need to consider how the interpersonal vs. intrapersonal nature of the outcome affects responsivity to causally-relevant information. Responsivity to causally-relevant information may diminish the more the observed behavior implicates the well-being of another person. There is also a need to reconsider the mechanisms underlying self-serving biases in causal attribution. Self-protection concerns may be aroused only under relatively public conditions or when the actor expects to perform the task in the future. Finally, the traditional actor-observer attribution difference may more accurately reflect participants' perceptions of what other people in the situation believe than participants' private beliefs regarding causality.

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CHAPTER I

Overview of the Problem

The process of causal attribution has been ascribed considerable importance over the past two decades because of the belief that causal attributions at least partly facilitate the prediction and control of behavior (Heider, 1958; Jones & Davis, 1965; Kelley, 1967, 1972). According to attributional frameworks, the causes to which we attribute our own and others' behaviors significantly affect other types of judgment. A considerable amount of attention has been given to how attributions affect the impressions we form, our affective responses, future performance expectations, feelings of competence, and our subsequent behavioral responses to a person or situation (cf. Abramson, Seligman, & Teasdale, 1978; Jones & Davis, 1965; Kelley, 1967, 1971, 1972; Rule, 1974; Shaw & Reitan, 1969; Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1972; Weiner & Peter, 1973; Weiner, Russell, & Lerman, 1978).

A central issue in the attribution literature concerns the extent to which the perceiver's perspective affects the attributions offered. Jones and Nisbett (1972) initially proposed that actors attribute their behavior to the situation, while observers attribute the actor's behavior to personal characteristics. While initial research seemed to support this proposal (e.g., Nisbett, Caputo, Legant, & Maracek, 1973; Storms, 1973), subsequent research has also

found that actors sometimes attribute their behavior to personal characteristics and that observers sometimes attribute the actor's behavior to characteristics of the situation (cf. Monson & Snyder, 1977; Solomon, 1978). The conditions under which either tendency will be manifested by actors or observers have not been clearly specified. However, there is some indication that actor-observer attribution differences may be explained in terms of the differential availability or salience of causally-relevant information and in terms of the differential influence of motivational concerns to actors' and observers' processing of the available causal information (e.g., Eisen, 1979; Miller, Norman, & Wright, 1978; Snyder, Stephan, & Rosenfield, 1976, 1978; Taylor & Fiske, 1975, 1978).

While research on actor-observer attribution differences has been productive from an empirical standpoint, research has focused almost exclusively on assessing whether, how, and why assuming different perspectives on a behavior results in causal attribution differences. Very little of this research has gone beyond these concerns to assess whether perspective differences in attribution have any functional significance for perspective differences in other types of judgments or behavior. As suggested by Kelley (1979), actor-observer attribution differences may be of particular importance in the initiation, development, and maintenance of many

interpersonal relationships. When actors' and observers' attributions conflict, this conflict may be manifested in their divergent affective responses to each other or to the situation and in their respective expectations or evaluations of the actor. Such divergences may affect the quality and outcome of many interpersonal relationships (e.g., employee-employer, parent-child, teacher-student). For example, these differences may undermine the ability of "observers" in supervisory roles to modify, improve, or motivate the actor's behavior. For these reasons, it seemed important to examine within the same set of studies whether actor-observer differences in other types of judgment, such as those related to sanctioning, are as pervasive as and could be predicted by actor-observer attribution differences. In the course of examining between-perspective (i.e., actor vs. observer) differences in attribution and sanctioning evaluation, an examination could be made of within-perspective (i.e., actor vs. actor, observer vs. observer) differences in these two types of judgment. Attention to within-perspective comparisons was also thought to be important because of the differing implications of specific areas of research for the extent to which evaluative processes reflect rational or irrational perceptions of the causes of behavior.

The overall goal of this dissertation, therefore, was to examine the relationship between actors' and observers'

causal attributions for, and sanctioning evaluations of, behaviors that resulted in positive or negative outcomes. Causal attribution refers to perceivers' beliefs regarding the extent to which the focal outcome was due to something about the actor's personal characteristics or was due to something about characteristics of the situation in which the behavior occurred. Sanctioning evaluation refers to the ascription of credit-blame and the perception of reward deservingness, i.e., to judgments that reflect approval or disapproval of the actor's behavior and the ensuing outcome. According to current perspectives on judgments related to sanctioning, an actor will be credited or blamed and will receive rewards or punishments to the extent that the actor is held personally causally responsible for a positive or negative outcome that meets, surpasses, or fails to meet adjudged norms of proper conduct (e.g., Harvey & Rule, 1978; Kelley, 1971; Ross & DiTecco, 1975; Shaw & Reitan, 1969; Weiner & Peter, 1973). This treatment of the link between causal attribution and sanctioning evaluation suggests that factors that enhance or reduce between-perspective differences in causal attribution should similarly enhance or reduce between-perspective differences in sanctioning evaluation. [1]

---

[1] Alternatively, the normative analysis of sanctioning evaluation suggests that an actor may be credited-blamed and rewarded-punished for a behavior even though the behavior is not attributed to personal characteristics (Harvey & Rule,

Furthermore, factors that enhance or reduce within-perspective differences in causal attribution should lead to parallel within-perspective differences in sanctioning evaluation.

Three factors were manipulated that are known to affect actors' and observers' attributions for task performance and that were considered relevant to the causal attribution-sanctioning evaluation link. These three factors are causal ambiguity, the public vs. private nature of the evaluation context, and the positive vs. negative valence of the outcome. By manipulating causal ambiguity, an assessment was made of whether perspective differences in causal attribution and sanctioning evaluation reflected actors' and observers' divergent perceptions of external influences on the actor's performance. By varying the public vs. private nature of the evaluation context, an assessment could be made of the extent to which self-presentational concerns contributed to within- and between-perspective differences in causal attribution and

---

[1](cont'd)1978; Kelley, 1971). From this viewpoint, actor-observer evaluation differences would be attributable more to perspective differences in the norms applied to behavior than they would be attributable to perspective differences in the perceived causes of behavior. However, a substantial body of literature indicates that the salient norms of evaluation often emphasize the perceived causes of behavior (cf. Weiner & Peter, 1973; Weiner et al., 1978). Despite the normative analysis of sanctioning evaluation, therefore, it is a worthwhile enterprise to determine if actor-observer sanctioning evaluation differences parallel actor-observer attribution differences.

sanctioning evaluation. Finally, by manipulating outcome valence, the generality of within- and between-perspective differences in attribution and evaluation could be determined.

The literature relevant to the present dissertation is reviewed in further sections of this chapter. In the first section, an attempt is made to specify how actors' attributions may be affected by differences in causal ambiguity and in the nature of the evaluation context. The impact of these latter two factors on sanctioning evaluation is then specified. In the second section, the evidence relevant to observer attribution and sanctioning evaluation is presented. This evidence is related to how observers' causal attributions might be reflected in their sanctioning evaluations. Then, in the third section, the evidence relevant to within-perspective differences is considered in terms of its implications for between-perspective differences in causal attribution and sanctioning evaluation. Finally, a review is given of the procedures and predictions for the two major experiments and the replication experiment conducted for the dissertation.

Review of the Literature

Actors

Attribution-evaluation link. It has been hypothesized that actors are motivationally-biased in their perceptions of the causes of their behavior (cf. Bradley, 1978; Zuckerman, 1979). The tendency to make higher personal than situational attributions for positive outcomes and lower personal than situational attributions for negative outcomes has been viewed as a self-serving bias (Miller & Ross, 1975; Ross, Bierbauer, & Polly, 1974). That is, actors are presumably motivated to make attributions that put them in the most favorable light as a means of protecting or enhancing their self-esteem.

The existence of self-serving attributional biases presumably results in a bias to evaluate one's behavior positively, i.e., in a bias to accept *credit* for positive outcomes, but to deny *blame* for negative outcomes (e.g., Arkin, Gleason, & Johnston, 1976; Snyder, Stephan, & Rosenfield, 1976, 1978; Stephan, 1975). However, evidence supporting self-serving *evaluational* biases stems from research that has assessed primarily the extent to which actors offer personal or situational *attributions* for positive and negative outcomes.[2]

---

[2] A study by Harvey, Harris, and Barnes (1975) is an exception to this statement. In this study, actors and observers made attributions of responsibility for an actor's behavior that resulted in either mild or severe negative

Thus, the assumption that high personal attributions lead to the acceptance of credit or blame, whereas high situational attributions lead to the denial of credit or blame has never been directly tested in this literature. Harvey and Rule (1978) recently demonstrated, moreover, that causal attribution is not isomorphic with judgments of responsibility in the form of judgments of credit-blame. Actors who were perceived to have accidentally caused a negative outcome were blamed more than actors who were perceived to have intentionally caused a negative outcome. Harvey and Rule's findings raise questions about the necessary dependence between judgments of causality and perceptions of credit-blame and deservingness. One purpose of the present two studies was to assess whether causal attribution is correlated with actors' ascriptions of credit-blame and perceptions of deservingness.

Evidence based on an equity formulation (e.g., Adams, 1965; Walster, Berscheid, & Walster, 1973) suggests that actors' causal attributions may be directly linked to their perceptions of deservingness. For example, actors work

---

[2](cont'd)outcomes for another inidividual. They found that actors reduced their ascriptions of responsibility when the outcome was severe relative to mild, whereas observers increased their ascriptions of responsibility when the outcome was severe relative to mild. However, as noted by Harvey and Rule (1978), it is unclear whether measures of responsibility attribution reflect perceptions of causality and/or perceptions of culpability. In order to assess adequately the attribution-sanctioning link it is therefore necessary to at least attempt to measure independently both types of judgment.

harder on a subsequent task if they perceive that their personal inputs on a prior task do not merit the payment received (e.g., Leventhal & Michaels, 1969). Actors presumably exert greater later effort to reduce the "inequity distress" created by high payment for low personal task inputs. While this evidence suggests that there is a link between actors' causal attributions and sanctioning evaluations, there is an interesting disparity between research on self-attribution and research on how causal attributions for task performance affects actors' perceptions of reward deservingness. Specifically, the self-attribution research suggests that actors should reward themselves on a self-serving basis. However, research that has more directly assessed actors' perceptions of reward deservingness has not found the self-serving tendency. Instead, it has been found that actors usually allocate rewards to themselves and others in an equitable manner, i.e., in a manner that is compatible with manipulations designed to affect actors' perceptions of their own relative to others' personal task inputs, even though this might lead actors to accept little reward (e.g., Leventhal & Michaels, 1969). Thus while evidence in the equity area affirms the link between the attributions and evaluations of actors, it nevertheless raises questions about whether self-serving evaluational biases are as pervasive as self-serving attributional biases.

Causal ambiguity. One of the many interesting differences between equity-based research paradigms and those yielding support for self-serving attributional biases is the specificity with which information about possible causal influences on the actor's performance is presented. In the equity-related research relatively low causal ambiguity is typically maintained. That is, actors are given information that should affect perceptions of their personal inputs to a task. For example, actors have been given information that they worked for a shorter or longer period than their co-actor, when both actors produced either the same amount or quality of output (e.g., Leventhal & Michaels, 1969). This information should affect their perception of their own ability and/or effort relative to the ability and effort of co-actors on the same task. These causal perceptions should in turn affect their allocations of self- and other-reward. In the self-attribution research, on the other hand, conditions of high causal ambiguity seem most conducive to finding a self-serving tendency (cf. Snyder et al., 1978). That is, actors manifest stronger tendencies to attribute positive outcomes to themselves, but negative outcomes to the environment, when potential causal forces on their performance are not specified (e.g., Snyder et al., 1976). Self-serving attributional tendencies are reduced when relevant causal information is less ambiguous, e.g., when conditions suggest

that good performance was to be expected or that bad performance was unexpected (e.g., Arkin et al., 1976; Feather & Simon, 1971; Frieze & Weiner, 1971; Harvey, Arkin, Gleason, & Johnston, 1974).

While there are many other differences between equity-based and self-attribution based research paradigms, evidence in the self-attribution area suggests that conditions of high causal ambiguity may facilitate self-serving evaluational biases just as they facilitate self-serving attributional biases. However, self-serving evaluational biases may be reduced when causally-relevant information is made explicit and this information is not consistent with the self-serving tendency. A second purpose of the present studies was to assess whether self-serving biases in perceptions of reward deservingness and credit-blame occurred primarily under conditions of high causal ambiguity.

Self-presentational concerns. Equity-based and self-attribution research paradigms also differ in terms of the extent to which self-presentational concerns may affect actors' responses in the situation. Relatively public conditions are maintained in equity-based research paradigms; these conditions are engaged by the nature of the dependent measures collected. For example, actors are asked to divide a fixed amount of money between themselves and other co-actors (e.g., Leventhal & Michaels, 1969). Since

participants are to receive these tangible rewards, actors may assume that other participants and/or at least the experimenter will be aware of their reward-allocation decisions. The relatively public nature of the evaluation context may thus arouse concerns with impression management, e.g., gaining the approval or avoiding the disapproval of others (Goffman, 1959). Within the context of this type of paradigm, therefore, concerns with impression management may lead actors to assign reward in accordance with the available causal information. At the same time, however, actors may privately disregard the manipulated causes of task performance unless the provided information is compatible with the attributions or evaluations they desire to make. Similarly, when no explicit causal information is available, actors may assign reward to themselves on a more conservative basis when these evaluations are to be made public rather than to be kept private. That is, actors may accept less reward for a positive or a negative outcome within public relative to private conditions.

The relative publicity of responses in the self-attribution research is less easy to discern. It is often unclear from information about procedures whether participants believe either that their responses are anonymous or that they will be singled out for evaluation. However, as noted by Gifford Weary Bradley (1978), and partly affirmed by research, self-serving attributional

tendencies are reduced when actors believe either that others will evaluate their responses or that their future performance could contradict their attributions. [3] Actors make more modest attributions for their performance or reduce their assessments of their own ability, either when they expect to share their attributional interpretations with others (e.g., Arkin, Appelman, & Burger, 1980, Study 1; Gould, Brounstein, & Sigall, 1977; Wells, Petty, Harkins, Kagehiro, & Harvey, 1977), or when they expect to perform a similar task in the future (e.g., Wortman, Costanzo, & Witt, 1973). This evidence suggests that the self-serving attributional tendency is a relatively private phenomenon that is less likely to be manifested within conditions that arouse concerns with impression management.

Evaluation context differences between the equity and self-attribution research suggests that self-serving evaluational assessments may occur primarily when the evaluation context is relatively private, i.e., when others will not see and evaluate the actor's responses. A third purpose of the dissertation was to assess the validity of this idea.

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[3] Gifford Weary Bradley (1978) also suggested that self-serving tendencies may occur under relatively public conditions. This expectation was based on the idea that others may approve of personal attributions for positive outcomes and situational attributions for negative outcomes.

Observers

Attribution-evaluation link. A considerable body of evidence in the equity literature attests to the significance of attribution as a determinant of observers' perceptions of actors' reward deservingness (e.g. Eswara, 1971; Evans & Molinari, 1970; Kaplan & Swant, 1973; Lanzetta & Hannah, 1969; Leventhal & Michaels, 1971; Leventhal & Whiteside, 1973; Weiner, 1973; Weiner & Kukla, 1970). For example, observers in the role of teachers reward their pupils (actors) more when pupils exert high rather than low effort on a task. Furthermore, high effort is rewarded more than high ability, and low effort is punished more than low ability (e.g., Weiner & Kukla, 1970). This evidence indicates that observers' perceptions of reward deservingness are predicated upon the causes to which they attribute actors' performance. This evidence further indicates that observers rely more on the internal controllable factor of effort than on the internal uncontrollable factor of ability in their perceptions of deservingness. Thus, there seems to be a strong link between the attribution and evaluation processes of observers.

Causal ambiguity. The equity-based research fails to indicate, however, how observers will evaluate actors when the available causal information is not as explicit as it has been in this research. In many settings, observers do

not receive explicit information about internal causes of actors' performance. Rather, it is more likely that they receive information about the contribution of external factors to the actor's performance. This then presumably alters their perception of the extent to which personal causes are necessary to explain satisfactorily the outcome (Kelley, 1972; Wells, 1980). When external factors do not account completely for the outcome, observers are still faced with the decision of whether ability and/or effort should be cited as causes. The decision reached by observers should then affect the extent to which they credit-blame and reward-punish the actor for positive/negative outcomes. Another purpose of the present two studies was to determine, therefore, how observers' attributions and evaluations were affected by conditions of high and low causal ambiguity.

Observers' attributions for success and failure under conditions of high causal ambiguity are difficult to predict confidently; this, of course, presents difficulties in predicting observers' sanctioning evaluations. Some research indicates that observers attribute success more than failure to personal factors (cf. Frieze, 1976). This evidence suggests that observers enter the situation with the causal presuppositions that positive outcomes are due to personal factors and that negative outcomes are due to situational factors (Kelley & Michela, 1980). This evidence

further suggests that observers' evaluations of actors will be generous, i.e., that observers will credit actors highly for positive outcomes, but not blame actors highly for negative outcomes. However, the tasks used in this area of research are limited in two respects. First, primarily role-play paper-and-pencil paradigms have been employed, in which observers are asked to imagine that an "actor" has succeeded or failed. It may be very difficult for observers to role-play the role of an observer; that is, they may assume the role of the actor and hence empathize with the actor. Second, the tasks employed are of a primarily intrapersonal nature (e.g., passing/failing a test), in which the actor's behavior and the outcome have implications primarily for the actor (cf. Frieze, 1976). Other research has involved observers more by having them witness a "live" actor who performs a more interpersonal task (e.g., helping another person). In this research, observers are not consistently benevolent toward actors. For example, observers tend to offer higher personal than situational attributions for negative relative to positive outcomes (e.g., Snyder et al., 1976; Stephan, 1975; Wells et al., 1977).

Because an interpersonal paradigm was employed in the present research, it was thought that observers may be somewhat less generous toward actors under conditions of high causal ambiguity. Observers may thus blame actors for

negative outcomes either as much as or more than they credit actors for positive outcomes. Furthermore, Kelley's (1972, 1973) analysis of causal schemata and his discounting and augmentation principles suggest that observers' personal and situational attributions for success and failure should be related to their perceptions of external causes of task performance (e.g., task difficulty), which will be reflected in their sanctioning evaluations. This suggestion is based on the idea that high task difficulty is an external facilitory cause of failure, but an inhibitory cause of success; whereas, low task difficulty is an external facilitory cause of success, but an inhibitory cause of failure. For example, an observer who perceives the task to be easy should offer higher personal than situational attributions for failure and higher situational than personal attributions for success. If attribution is reflected in observers' sanctioning evaluations, observers should thus blame actors more for failure than they credit actors for success.

At the same time, however, the magnitude of the difference between observers' ascriptions of credit for success and ascriptions of blame for failure is difficult to predict confidently. According to past research on observers' perceptions of reward deservingness (cf. Weiner et al., 1978), the magnitude of the difference between ascriptions of credit-blame should depend upon whether

observers offer ability and/or effort attributions for positive and negative outcomes. Unfortunately, no research bears on whether observers are likely to make high effort and/or high ability attributions under conditions of high causal ambiguity.

Kelley's (1972) discounting and augmentation principles have been applied more confidently to the attributions made by observers under conditions of low causal ambiguity (e.g., Fontaine, 1975; Frieze & Weiner, 1971). A considerable amount of research has assessed how uninvolved observers' attributions are affected by factors that should rationally alter the attributions made (cf. Weiner, 1973; Frieze, 1976). On the whole, this research indicates that observers rationally adjust their attributions according to the presented causally-relevant information. A high personal attribution is more likely to occur when an actor succeeds on an explicitly difficult task than when an actor succeeds on an explicitly easy task. Similarly, high personal attributions for failure are more likely when an actor fails an easy task rather than fails a difficult task (cf. Frieze, 1976). Again, assuming that observers' attributions are related to their sanctioning evaluations, judgments of credit-blame and assignments of reward should align with their attributions in each of the causally unambiguous conditions. Furthermore, assuming that effort relative to ability attributions better predict observers' sanctioning

evaluations (Weiner et al., 1978), it will be interesting to determine how observers' more specific attributional assessments are affected by high and low task difficulty information. It should be emphasized, however, that observers in the present experiment may not make as rational adjustments as would be predicted by the foregoing data base. The reason for this was specified earlier, i.e., observers may evaluate actors more harshly when the task is of an interpersonal nature.

Self-presentational concerns. Very little research has assessed directly and unambiguously how changes in the nature of the evaluation context affect the attributions made by observers. Furthermore, the existing research suggests that changes in the evaluation context may induce different types of concerns on the part of observers, which then result in different patterns of attribution.

According to Zajonc' (1954,1960) analysis of cognitive tuning, an observer will be more motivated to develop or present a well-unified and organized impression of another when the observer expects to communicate this impression to someone than when the observer does not expect to transmit his/her impression. This motivation may stem from a variety of concerns, e.g., the desire to be accurate or to appear knowledgeable. Expected communication and no expected communication are referred to as transmission and reception sets, respectively. Research on cognitive tuning has shown

that expectant transmitters are less receptive to information contradictory with their own impressions, develop more unified and polarized[4] impressions, and make more extreme attributions than expectant receivers (Brock & Fromkin, 1968; Cohen, 1961; Harkins, Harvey, Keithly, & Rich, 1977; Harvey, Harkins, & Kagehiro, 1976; Leventhal, 1962; Mazis, 1973; Zajonc, 1954, 1960).

Zajonc' distinction between transmission and reception sets may bear on how the public vs. private nature of the evaluation context affects the attributions reported by observers. In this respect, it is being assumed that a transmission set is more operative in what is being called a public condition, i.e., a condition in which the observer expects to communicate his/her attributions to others. It is also being assumed that a private condition is more likely to engage processes compatible with those induced by reception sets, because the observer does not expect to transmit his/her impression to other individuals. According to this analysis, the directional relationship between observers' personal and situational attributions will not change as a function of the public vs. private nature of the evaluation context. For example, if the observer privately believes that a greater personal than situational attribution should be made for the actor's behavior, a

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[4] By polarized, it is meant that the subject tends to use the extreme points on a response scale.

similar attributional pattern should be found in a public condition. However, the magnitude of the difference between the two scale responses may be greater in the public relative to the private condition.

Although the cognitive tuning analysis implies greater attributional polarization in public relative to private conditions, the *type* of attribution(s) that will be made is difficult to predict confidently. Harvey and his colleagues (Harkin et al., 1977; Harvey et al., 1976) tried to minimize this problem by suggesting that a transmission relative to a reception set leads the observer to make more extreme attributions to plausible causal factors in the situation. Unfortunately, under conditions of high causal ambiguity, plausibility is difficult to specify operationally. Plausibility could mean the attributions the observer expects the target discussant to make. Alternatively, plausibility could mean the attributions the observer would "naturally" make independently of changes in the nature of the evaluation context. However, according to this extension of Zajonc' analysis, observers' attributions and evaluations should be more extreme in the public relative to the private condition.

The prediction based on the cognitive tuning analysis conflicts with Wells et al.'s (1977) suggestion and findings that anticipated discussion leads to more moderate attributions on the part of observers. Wells et al.'s

moderation hypothesis was based on the idea that observers desire to adopt a defensible position when they expect to discuss their evaluations with others. This occurs because observers presumably desire to appear unbiased in their assessments of the actor's performance. To do this, observers offer mixed personal and situational attributions.

To test their moderation hypothesis, Wells et al. forced perceivers to treat personal and situational causes as interdependent by asking them to distribute 100 points between descriptions depicting personal and situational causal alternatives. They then calculated an index consisting of the difference between the degree to which personal and situational factors were cited as causes. Their results supported the moderation hypothesis. Observers were more likely to cite equally personal and situational causal factors in the anticipated discussion condition. In the no anticipated discussion condition, observers emphasized personal factors more than situational factors for negative outcomes and situational factors more than personal factors for positive outcomes .

The personal-situational attribution index used by Wells et al. unfortunately obscures the various response strategies that could have been used by observers, and it assumes implicitly that personal and situational attributions are highly negatively correlated. Given two different scales, for example, observers may have exercised

the options of either attributing the actor's behavior to both personal and situational factors or to neither of these two factors. Because research evidence suggests that personal and situational attributions are not necessarily negatively correlated (e.g., Solomon, 1978; Taylor & Koivumaki, 1976), it is difficult to interpret Wells et al.'s results. Furthermore, Wells et al.'s public or anticipated discussion condition was unclear as to whether observers thought they would be responsible for expressing their impressions to others or listening to another co-observer's own impressions. Wells et al.'s anticipated discussion condition may have been somewhat comparable to Harvey and his colleagues' reception set condition; in which case the results of the two studies do not conflict.

The present review indicates that observers may be affected in a variety of different ways by the public vs. private nature of the evaluation context. The cognitive tuning analysis suggests that observers will make extreme attributions in the public condition, but that the direction of their attributions made in public will not change when these evaluations are solicited in private (Harkins et al., 1977; Harvey et al., 1976). Alternatively, Wells et al.'s (1977) analysis suggests that observers will make personal and situational attributions of the same magnitude in the public condition, but that observers in the private condition may offer higher personal than situational

attributions for negative outcomes and lower personal than situational attributions for positive outcomes. In order to assess the conflicting predictions made in this area, the present two studies included separate measures of personal and situational attribution. Then, assuming that the two scales were negatively correlated, a personal-situational attribution index could be constructed to assess whether observers' attributions became more moderate or more extreme under public conditions. Furthermore, since these conflicting attributional tendencies apparently exist, attempts were made to determine whether concerns for accuracy, cautiousness, or modesty were differentially affected by the public vs. private nature of the evaluation context.

Actors vs. Observers

Most of the emphasis has been placed thus far on what factors lead to within-perspective differences in causal attribution and on the implications of this research for within-perspective differences in sanctioning evaluation. The factor affecting self-attribution has been viewed as primarily motivational. That is, actors have been characterized as making attributions that put them in the most favorable light either to protect or enhance their private self-esteem or to gain the approval/avoid the disapproval of others. The factors affecting observers' attributions have been viewed as both motivational and

informational in nature. Observers have been characterized as making similar assumptions to those made by actors about the causes of success and failure (Kelley & Michela, 1980). Observers have also been shown to offer attributions that take into account the manipulated causes of success and failure (cf. Frieze, 1976). In this respect, observers process the available causal information in a manner that is compatible with rational models of the attribution process (Kelley, 1967; Weiner et al., 1972). At the same time, however, other aspects of the situation--such as its interpersonal nature--may undermine observers' tendencies to take into account the manipulated causes of success or failure. For example, even though an observer may be told that the task was difficult, (s)he may harshly evaluate an actor who fails to help another individual or (s)he may not credit an actor who succeeds in helping another.

A joint consideration of current findings relevant to actors' and observers' attributions suggests that actors and observers may differ in the attributions made not only for positive but especially for negative outcomes. These differences are most likely to occur under conditions of high causal ambiguity. The attributional egotism literature suggests that, under conditions of high causal ambiguity, actors are more likely to offer higher personal than situational attributions for positive outcomes, but higher situational than personal attributions for negative

outcomes. Research on observer attribution is more inconclusive. For example, observers sometimes also offer higher personal than situational attributions for positive than negative outcomes. At other times, they manifest the opposite tendency. Both of these tendencies occur under conditions of high causal ambiguity, however, the former tendency is more prevalent when the task is of an intrapersonal nature (cf. Frieze, 1976; Wells et al., 1977). When external constraints on the actor's performance are more explicit, however, actors' and observers' attributions may begin to converge. The convergence hypothesis is based on evidence showing that actors manifest less attributional egotism when other evidence can contradict their attributions and that observers rationally weigh externally provided information when it is given to them. These suggestions were examined in both studies conducted for the dissertation. In addition, an attempt was made to determine whether these convergence and divergence tendencies were manifested on judgments related to sanctioning evaluation.

The public vs. private nature of the evaluation context was also expected to modify the extent of attributional divergence on the part of actors and observers. Because actors may be more likely to manifest egotism under private conditions and because observers seem more likely to respond harshly toward actors under private conditions, it was

expected that the greatest actor-observer attribution divergence would be found in the private condition. Furthermore, assuming that attribution predicts evaluation, the greatest actor-observer evaluation divergence should be found in the private condition.

Summary and Overview of the Research

Both studies examined the relationship between causal attribution and sanctioning evaluation from a correlational and an experimental vantage point. Both experiments included measures of causal attribution and sanctioning (i.e., ascriptions of credit-blame and perceptions of reward deservingness). Both experiments also included either indirect or direct manipulations designed to affect the extent to which an actor's task performance was attributed to personal characteristics or to characteristics of the situation. These manipulations were expected to affect evaluative appraisals of actors' performance in a manner suggested by current perspectives on the link between causal attribution and sanctioning evaluation (cf. Kelley, 1971; Weiner & Peter, 1973). Both experiments employed the client-therapist paradigm (e.g., Harvey et al., 1974), in which participants-as-actors deliver a set of desensitization instructions to a presumed "client" who has some type of phobia, while participants-as-observers watch the actor-therapist deliver the instructions. Feedback is then given about how much the actor succeeded in relaxing

the client.

The first experiment was designed to assess whether the client-therapist paradigm was an appropriate setting within which to examine perspective differences in causal attribution and sanctioning evaluation and to determine whether the public vs. private nature of the evaluation context affected within- and between-perspective differences in attribution and evaluation. There were two reasons for assessing the effects of evaluation context on evaluation and attribution. First, any future analysis of attributional conflict must take into account whether, and how, demands of the social situation affect either actors' or observers' willingness to express their privately held beliefs. It could be the case, for example, that actors' and observers' publicly expressed attributions differ little, even though their privately believed attributions differ considerably (e.g., Wells et al., 1977). This raises the important question of how attributional conflict is resolved. Second, it is important to understand whether the attributions and evaluations expressed by actors actually reflect their private concerns with self-esteem maintenance or reflect more of a concern with managing the impressions formed of the actor by others.

To answer these questions, uninvolved observers watched actors perform the role of a therapist. Actors received feedback that the client was feeling much more tense by the

end of the counselling session. To maintain those conditions most conducive to self-serving biases in attribution, no information was given to guide or direct participants' attributions for the actor's failure. Participants were then led to believe either that their performance evaluations would be discussed with a group of knowledgeable others (public) or that these evaluations would remain completely anonymous (private). Participants then summarized their perceptions of what caused the actor's performance and indicated how much the actor deserved to be rewarded and credited-blamed for his/her performance. To control for the possible artifact of forcing a strong relationship between measures of causal attribution and sanctioning evaluation, these measures were collected in two different orders. In addition, exploratory measures were collected of how long participants took to answer the questions.

On the basis of the attributional egotism research (Snyder et al., 1978) and the self-presentational literature (e.g., Bradley, 1978), it was predicted that actors would be more likely to offer self-serving assessments of their failure in the private relative to the public condition. This would be reflected in higher situational than personal attributions for failure in the private than in the public condition. Assuming that sanctioning evaluation is affected by attribution, actors should also make lower judgments of

blame and perceive themselves to be more deserving of reward in the private relative to the public condition. Confident predictions regarding observers' attributions are more difficult to offer. On the basis of Wells et al.'s (1977) moderation hypothesis, it may be predicted that observers should offer mixed (i.e., moderate) personal and situational attributions in the public relative to the private condition. On the basis of the cognitive tuning analysis, it can be predicted that observers will make more extreme attributions in the public relative to the private condition.

Since it is difficult to predict how observers' attributions will be affected by changes in the nature of the evaluation context, it is difficult to predict how actors' and observers' judgments will differ as a function of changes in evaluation context. However, the existing evidence suggests that actors' and observers' personal attributions may diverge the most under private conditions. This is based on evidence suggesting that actors will make high situational and low personal attributions under private conditions (cf. Weary, 1980), but that observers will make higher personal than situational attributions (Wells et al., 1977) or less extreme personal and situational attributions under similar conditions (Harkins et al., 1977; Harvey et al., 1976).

An attempt was made in Experiment 2 to examine the conditions that enhance and reduce perspective differences in causal attribution and sanctioning evaluation for both success and failure. The major question guiding this study was whether actor-observer attribution and evaluation differences could be reduced or enhanced by providing information that should reduce or increase personal attributions to the actor. To assess whether attributional conflict might be traced to divergent perceptions of constraints on the actor's performance, the attributions made by both perceivers under information and no information conditions were also compared.

To address these questions, the client-therapist paradigm was again used, but actors received feedback that the client felt either much more relaxed or much more tense by the end of the counselling session. Participants were then either given or not given information designed to affect their perceptions of whether good or poor performance was to be expected and, hence, designed to affect the extent to which performance was attributed to the actor or to the situation. Specifically, some participants were told that either 15% or 85% of past students had succeeded in relaxing their respective clients, meaning that the counselling task, on the whole, was either difficult or easy. High task difficulty information should lead to high personal attributions for success, but low personal attributions for

failure. Conversely, low task difficulty information should lead to low personal attributions for success, and high personal attributions for failure. In addition, other participants were not given any information regarding task difficulty; hence, in this condition, relevant causal information was absent. Participants then evaluated the actor's performance on measures of causal attribution and sanctioning evaluation. The order in which participants' answered the causal attribution and sanctioning evaluation questions was again counterbalanced, but these evaluations were collected within a public condition only.

It was expected that actors' and observers' attributions and evaluations would diverge the least under conditions of low causal ambiguity, i.e., in those conditions where participants had been told either that 15% or that 85% of past participants had succeeded. Conversely, it was expected that actors' and observers' judgments would diverge the most under conditions of high causal ambiguity, i.e., in the condition where no task difficulty information was provided. Finally, it was thought that the actor-observer divergence would be the greatest when the outcome was a failure rather than a success, since past research seems to indicate that the actor-observer difference is more reliable with negative than with positive outcomes (see Zuckerman, 1979). These tendencies would be reflected in a significant three-way interaction among

perceiver role, task difficulty, and outcome. Again, assuming that sanctioning evaluation is affected by causal attribution, a similar three-way interaction was expected on judgments of credit-blame and perceptions of reward deservingness.

Pilot work and a replication experiment were also conducted. In addition to working out the procedure, the pilot study assessed whether the public vs. private nature of the evaluation context significantly affected perceiver's concerns with accuracy. The replication experiment assessed the extent to which actors' and observers' own causal attributions and sanctioning evaluations corresponded with their estimates of either the expected discussants' (i.e., the psychologists/supervisors') or their counterpart's judgments.

Finally, the response order manipulation was included in the two major experiments, because past research has not been careful to minimize the effects of prior attribution questioning on responses to subsequent dependent measures. Thus, it is unclear whether a significant relationship between causal attribution and other judgments has been artifactually forced in past research. Some evidence (e.g., Enzle & Schopflocher, 1978) suggests that manipulations designed to affect causal attribution do not always affect other responses in the manner predicted by current perspectives on the attribution process (e.g., Kelley,

1972). It is therefore necessary to control for the artifactual production of a strong relationship between causal attribution and other types of judgment. This was done in the present research by varying the order in which judgments related to causal attribution and sanctioning evaluation were solicited. It was hoped that response order would not significantly affect the magnitude of the scale responses made. Otherwise, questions can be raised about the neccessary link between causal attribution and other types of judgment; in this case, sanctioning evaluation.

CHAPTER II

Experiment 1

Method

Subjects and Design

One hundred and ten introductory psychology students (58 males, 52 females) participated in the first study in partial fulfillment of course requirements. One like-sex actor-observer dyad was run per session. Each dyad was randomly assigned to one of eight conditions of a 2 X 2 X 2 mixed factorial design, with Perceiver Role (actor vs. observer) assigned within-sessions and Evaluation Context (public vs. private) and Response Order (causal attribution preceded vs. followed by sanctioning evaluation) assigned between-sessions. The same proportion of males to females was assigned to each condition. Sex of the participants and sex of the confederate (i.e, client) were not crossed in the design, i.e., female participants saw only a female confederate and male participants saw only a male confederate.

Procedure

Counselling phase. Upon arrival at the laboratory, participants were asked to take a seat in one of two rooms. The room chosen by a participant determined whether or not the participant was assigned to the actor or observer role. There was a television monitor, a 7-key response panel, a variable transformer-controlled "distress-meter", and a set

of headphones in each room. In addition, a microphone and a camera were in the actor's room, so that the observer and experimenter could hear and see the actor during the counselling phase.

Audiotaped instructions were delivered after the experimenter seated participants in their individual rooms. A transcript of these instructions is presented in Appendix A.1. Participants were informed that the study was one in a series of experiments being conducted jointly by the Psychology Department and the University of Alberta Student Counselling Service. Participants were informed that Student Counselling was interested in determining the extent to which nonprofessionally-trained counsellors could administer a set of desensitization instructions to students who had problems with test anxiety. The major question being asked by Student Counselling was whether the same quality of care could be provided by volunteer counsellors who had a minimum of professional training. Participants were told that previous research indicated that volunteer counsellors who had experience with a problem like the client's problem could perform just as well as trained clinicians. This information was given to assure participants that they could succeed on the task, but the ambiguous proviso "who had experience with a problem like the client's problem" was added to minimize initially high anchoring of either personal or situational attributions.

Participants were then informed that, as they could see from the notes on their tables, one of them had been assigned to the role of student counsellor, whereas the other person had been assigned to the role of an observer. It was made clear that this assignment was randomly determined by which room each of them selected when they entered the laboratory. It was explained that both student counsellors and observers were needed in the study to assess different perspectives on the research problem.

Participants were then given some background information about the clients who were participating in the study. They were informed that Student Counselling had referred some of their clients to the study and that all of these clients had problems coping with examination situations. It was emphasized that the client volunteers had been fully informed about the nature of the study. The clients had presumably volunteered to participate because they knew they were going to be helped by students, like themselves, who should be able to relate to being anxious about taking exams.

It was then explained that the client participating in the present session was scheduled to arrive after both participants had been seated in their individual rooms to avoid any potential embarrassment to either participants or the client. When the client arrived, (s)he would be seated in a comfortable chair at a desk in the main part of the

laboratory, at which time the experimenter would place a set of electrodes on two fingers of the client's left hand. The electrodes were presumably connected to an electropolygraph recorder designed to measure muscular relaxation. This measure was described as being a very reliable index of psychological relaxation.

Participants' attention was directed to the meters on their tables. On the face of the meters was a 10-point scale, labelled from 1 (very relaxed) to 10 (very unrelaxed). Participants were told that movement of the needle toward point 1 indicated increasing tension, whereas movement toward point 10 indicated increasing relaxation on the client's part. The instructions emphasized that the counselling session would actually be conducted only if the client's level of muscular relaxation was just about at the middle of the scale at the beginning of the counselling session.

The counselling phase was then briefly described to participants. Participants were told that the student counsellor was going to use a process called guided desensitization. Guided desensitization was described as a process in which the counsellor verbally and gradually guided the client in thinking about aspects of the problem, while helping the client calm down and relax. It was explained that two preliminary tasks had to be completed, however, before the counselling session could be started.

The counsellor first had to complete a test of social sensitivity. This test was described as a measure of the counsellor's ability to relate to people on an interpersonal level. Participants were told that the social perceptiveness test was a very well-validated measure of social sensitivity. They were told that data from this test were required to determine how effective the counselling itself was in relation to the counsellor's natural ability to relate to people.[5] Participants were then informed that the counsellor would also receive an outline of the four most successful desensitization approaches. The actor-counsellor was asked to choose the approach with which (s)he personally felt the most comfortable and the one that (s)he personally felt would be the most effective.[6]

At this time, the experimenter delivered the social sensitivity test and a copy of the available counselling

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[5] The social sensitivity test was administered as one means of increasing actors' involvement on the task (Miller, 1976), by leading them to believe that social sensitivity was a good predictor of performance on the counselling task and that social sensitivity was highly correlated with people's general intelligence. In actuality, participants never received feedback about their performance on this test. A copy of the social perceptiveness test is presented in Appendix A.2.

[6] Actors were given choice among the four ostensibly different types of desensitization approaches to reduce their tendencies to attribute failure to uncontrollable features of the task situation, such as low choice (Arkin et al., 1976). These approaches were labelled: (1) Direct Rational Approach, (2) Indirect Rational Approach, (3) Direct Emotional Approach, and (4) Indirect Emotional Approach. The one sentence description of each approach was written so as to be plausibly consistent with the counselling instructions (See Appendix A.3).

outlines to the actor. The actor's aggreement to assume the role of counsellor was solicited at this time. The actor was informed that (s)he had three minutes to complete the test of social sensitivity, after which (s)he was to proceed immediately to looking over and choosing the desired set of desensitization instructions. It was again emphasized at this time that the actor was free to choose the counselling approach with which (s)he felt the most comfortable and felt would be the most effective. Before the experimenter left the room, she directed the actor's attention to the camera located in one corner of the room. The experimenter noted that usually both the client and the observer could view the actor over their monitors but, due to equipment malfunctions, no one would be able to see the actor.[7] The camera was noticeably pointed away from the actor and was camouflaged to appear inoperative. Extra cables were draped over the camera, it appeared unplugged, and a handwritten note was taped to it asking a shop technician to make some repairs. UnKnown to the actor, (s)he was in full view over the monitors, through the use of a wide-angle lens.

While the actor completed the social sensitivity test and the available counselling outline, the observer was given copies of both tasks and was informed that the actor had agreed to perform the role of the counsellor. The

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[7] This information was given to reduce anxiety on the actor's part.

observer was told that the counsellor would see the client over his/her monitor, that the client could only hear the counsellor, and that the observer would see and hear both the client and the counsellor over his/her headphones and monitor. It was stressed that the observer was not being watched.

At the end of the 3-minute time period, the experimenter collected the social sensitivity test and, when necessary, waited for the actor to decide which counselling approach to use. Even if the actor failed to inquire about differences among the four approaches, the experimenter always stated that the approaches differed along two dimensions. The experimenter first stated that all of the approaches involved desensitization, which meant that they were designed to bring the client into contact with the problem of test anxiety. The experimenter then stated that the approaches differed in terms of whether they dealt with the problem primarily on an affective dimension (i.e., the client's "gut level" reaction to the problem) or on an intellectual level (i.e., the client's "understanding" of the problem), and in terms of how quickly the instructions brought the client into contact with the problem. The experimenter intentionally made these statements ambiguous to avoid biasing the counsellor toward one approach more than another.

After the actor made his/her decision, the experimenter gave the actor a copy of the "chosen" instructions and explained several aspects of the counselling phase.[8] The experimenter asked the actor to spend the next 10 minutes studying the instructions. The actor was asked first to skim the instructions and then to go over each point and to think very carefully about what each point was communicating. The actor was told to modify any point with which (s)he felt uncomfortable, but to retain the gist of each point. The actor was instructed to then re-read the instructions and to underline those points or parts of those points that (s)he wanted to emphasize or elaborate on relative to other points. The experimenter indicated that she would return within the 10-minute study period to see how (s)he was doing and to answer any questions. The experimenter then gave the observer a copy of the counselling instructions that the counsellor had "chosen"

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[8] The counselling instructions used by the actor and seen by the observer consisted of 10 major points. The instructions began with a general introduction to the effect that the counsellor was going to help the client understand and cope with his/her problem. The client was then asked to relax and was given various imagination techniques to use to relax. The instructions then very quickly brought the client into contact with the problem. A copy of the counselling instructions is presented in Appendix A.4. In addition, regardless of which counselling approach actors thought they were using, they always used the same set of counselling instructions. To maintain participants' beliefs that the actor had in fact received the chosen approach, the name of the counselling approach selected by the actor was typed on the top of the first page of the counselling instructions.

and asked the observer to look them over.

While participants were going over the instructions, the client-confederate arrived and knocked on the main laboratory door. The experimenter brought the confederate into the room, seated him/her at a desk in the main part of the laboratory, and attached a bogus set of electrodes to two fingers on the client's left hand. Neither the actor nor the observer could see nor hear the confederate at this time. The experimenter returned to the actor's room, answered any questions that the actor had, and informed him/her that the counselling phase was almost ready to begin. The experimenter then retrieved from the observer both the outline of the available counselling approaches and the counselling instructions. Before the experimenter left each participant's room, she indicated that careful attention should be paid to the monitor and that the participant should leave on his/her headsets. The experimenter also noted that she would be busy monitoring the physiological apparatus during the counselling phase, so that she would not be able to pay attention to the counselling session.

The experimenter returned to the main part of the laboratory, activated the variable transformer connected to the "distress-meters", and delivered audiotaped summary instructions about the counselling phase. At this time, participants could could see the confederate over their

monitors; the observer could also see the actor, although actors were unaware of this. The instructions indicated that the client had been seated in a comfortable chair and was awaiting the counselling phase. During the rest of these instructions, the "distress meter" needle hovered around point 5 on the 10-point scale. Participants were told that the point 5 reading meant that the client was neither completely relaxed nor completely tense at that time. The actor was then asked to prepare to begin the counselling instructions and was reminded to spend no more than one minute on each point of the instructions and to present the entire set of instructions. The actor was reminded to pause for about 10 seconds after each point was made, and to look at the meter to see what effect the counselling was having on the client. The actor was told to ask the client how (s)he felt at the end of the counselling phase, after which the experimenter would dismiss the client from the experiment. It was finally stated that participants would go on to the next experimental phase after the client was dismissed from the experiment. Participants were given no idea at this time of what the next experimental phase involved.

Both client-confederates were trained to appear increasingly more tense over the course of the approximately 10-minute counselling phase. For example, when the instructions stated: "You're walking across campus towards

the building where the examination will be held.", the confederate would frown and take a very deep breath. Both client-confederates also tried to accomodate their nonverbal behavior to the statements made by each actor. For example, the client-confederate took deep breaths every time the instructions emphasized deep breathing. At the same time, the experimenter manipulated the needle on the distress meters using the variable transformer. Over the course of the counselling phase, the needle went from point 5 on the scale down to point 4, and progressively up to between points 7.5 and 8. After the actor finished delivering the counselling instructions, the actor asked the client how (s)he felt. The confederate hesitated and then made a statement to the effect that "I don't feel very good right now. (pause) I guess this didn't help me."

The experimenter terminated the counselling session as soon as possible after the client-confederate had answered the actor's question. Before walking over to the confederate's part of the room, the experimenter switched off the variable transformer. The experimenter then walked over to the confederate and indicated that (s)he was to go down to the counselling center on the second floor, because there was a counsellor down there waiting to talk to him/her.

Dependent measure phase. At this time, audiotaped instructions regarding the dependent measure phase were

delivered to participants over their headphones. It was explained that, as they could see over their monitors, the client had been dismissed from the experiment and that at that time they were going to evaluate the counsellor's performance on the counselling task. Due to the videotaped nature of the dependent measure phase, it was explained that several questions would appear on their monitors. It was further explained that the experimenter would read each question aloud and that the participant was to read each question along with the experimenter. Participants were told that each question would appear on their screen for a fixed period of 30 seconds and that, after each question had been read to them, they were to think about how they wanted to answer the question. They were asked to indicate their response to each question by depressing the desired key on their 7-key response panels before the 30 second period elapsed. At no time were participants informed that their response latencies were being measured.[9] Participants were once again reminded that there was no way to correct a mistake on their response panels, so they were to be sure to

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[9] Exploratory measures of response latency were included to determine whether judgments of causal attribution actually facilitated the time required to offer evaluations of the actor's performance. Past research (e.g., Ferguson & Wells, 1980) has indicated that the consideration of information relevant to causal attribution actually speeds up the attribution process. The related question addressed here was whether prior attributional assessments of actors' performance reduced the time required to evaluate actors' performance.

depress only that key that best represented their answers.

Due to the facts that the questions were videotaped and that both actors and observers were being run simultaneously, the questions were always phrased with respect to the student counsellor, rather than personalizing the question for the actor or the observer. To clarify this format to participants, it was explained that those questions specifically referring to the *student counsellor* should be interpreted by the student counsellor as referring to him/her and should be interpreted by the observer as referring to the person who delivered the counselling instructions. It was explained that other questions used the more general reference *you*, and that these questions should be interpreted by the student counsellor as referring to him/her and by the observer as referring to him/her. Participants were once again reminded that they were not to answer a question until the entire question had been read to them and until they were sure of how they wanted to respond. [10]Finally, participants were asked to remember that they were to answer every question.

During the dependent measure phase, participants responded to 13 items designed to assess the effectiveness of the manipulations and to assess their causal attributions

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[10] Very infrequently (n = 2) a participant responded before the experimenter finished reading the question. In these rare instances, a participant was assigned the mean response latency for that question for subjects in the same condition.

for, and sanctioning evaluations of, the actor's performance on the counselling task. [11] All of these questions were presented on 7-point scales and, unless otherwise specified, were labelled 1 = not very much and 7 = very much.

Participants' perceptions of actors' choice over which set of counselling instructions could be used was assessed on the item: "How much choice was the student counsellor given over which counselling instructions could be used?" The successfulness of the counselling session was assessed by the question: "Now that the counselling session is over, to what extent do you feel that the outcome of the counselling session was a success?"

Four measures were included to assess the effectiveness of the public vs. private evaluation context manipulation. One item simply tapped participants' memory for the experimenter's statement regarding the discussion of the counselling session with the psychologists-supervisors of the study. This item read: "To what extent did the experimenter indicate that you would be verbally discussing your answers to the evaluation questions with a team of psychologists?" A second item asked: "To what extent did you feel someone would evaluate your interpretation of the student counsellor's performance on the counselling task?" Two additional questions were included to assess the

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[11] For the convenience of the reader, transcripts of these items are presented in Appendix A.5.

possible mediating effects of the nature of the Evaluation Context on participants' answers to the questions. These questions asked how much of a need participants felt to be cautious and modest in their evaluations of the student counsellor's performance on the counselling task, where a higher number reflected more of a need to feel cautious or modest.

Participants were asked to rate the personal and situational causes of the actor's performance on two questions worded: "To what extent was the outcome of the counselling session due to how the student counsellor delivered the counselling instructions?" and "To what extent was the outcome of the counselling session due to circumstances beyond the student counsellor's control?"

Because outcome valence was to be manipulated in Experiment 2, two measures of credit-blame were included in the first study. The first measure of credit-blame to be asked of participants was presented on a bipolar scale and was included within the Response Order manipulation. This item was phrased: "How much do you feel the student counsellor should be credited (if the student counsellor succeeded in relaxing the client) or blamed (if the student counsellor failed in relaxing the client) for the outcome of the counselling session?" (1 = should be credited a lot; 7 = should be blamed a lot). The same question was repeated later, outside of the context of the Response Order

manipulation, but the scale endpoints were labelled 1 = not very much and 7 = very much.

In addition to the two measures of credit-blame, measures of actor responsibility and client responsibility were included. The actor (client) responsibility questions were worded: "How personally responsible do you feel the student counsellor (client) is for the outcome of the counselling session?"

The final response measure of interest was participants' perceptions of how much reward the actor deserved for his/her performance on the counselling task. Perceptions of deservingness were assessed by answers to the following question: "Student Counselling has offered to pay the student counsellor in this session a $7.50 fee for his/her services. Indicate below the size of the fee which you think the student counsellor deserves for his/her performance on the counselling task. That is, you should reward him/her an amount consistent with how much you think his/her performance was worth." (1 = $1.50, 7 = $7.50, in $1.00 increments).

Questions for the dependent measure phase were typed in orator font and were then videotaped. The experimenter's verbalization of each question was taped on one soundtrack of the videotape. A tone was also recorded on the second soundtrack of the videotape. To minimize the influence of reading time on response latencies, this tone was inserted

immediately after the experimenter finished verbalizing each question. The tone triggered a window discriminator connected to the digital timers, from which response latencies were recorded. Ignoring reading time, each question appeared on participants' monitors for a fixed period of 30 seconds, immediately after which the next question appeared. Depression of a response key stopped the participant's timer and illuminated its corresponding light on a panel from which a confederate or the experimenter then recorded both the participant's response latency and scale response.

Evaluation context manipulation. Following the explanation of the dependent measure phase, the experimenter delivered the audiotaped public vs. private evaluation context manipulation. A transcript of these instructions is presented in Appendix A.6. Participants in the *private* condition were told that, consistent with what they had been told in their introductory psychology class, all aspects of their behavior and their interpretation of the counsellor's performance would remain completely anonymous in the experiment. It was explained that neither the experimenter nor the psychologists associated with the study would see their answers to the questions, because their answers were being fed directly into the laboratory computer. To maintain comparability of the private with the public condition, the experimenter stated that the retention of

anonymity was not standard operating procedure in all experiments. They were told that normally the team of psychologists supervising the study would visit each session to evaluate the entire session and the participants in it. It was explained that this procedure was used to facilitate the psychologists' evaluation and that the psychologists normally would talk to each participant individually about the participant's answers to the questions. It was noted that we would not follow this procedure, because of the time constraints involved in running the study. Participants were then told that the experimenter would dismiss each of them separately from the experiment as soon as the evaluation phase had been completed.

Participants in the *public* condition were informed that they were going to discuss their interpretation of the counsellor's performance with a team of psychologists. It was explained that, contrary to what they may have been told in their introductory psychology class, there were some experiments where no aspect of their behavior or their interpretation remained anonymous. The experimenter elaborated on this point by noting that the team of psychologists supervising the study and the experimenter wanted to see their answers to the questions. They were told that the team of psychologists was presently in the

laboratory and was waiting to evaluate the entire session. [12]It was explained that the psychologists would see their answers to the questions over the teletype machine connected to the computer into which their answers were being directed. It was then explained that the psychologists wanted to meet with each participant *individually* (verbal emphasis) so that they could discuss each participant's evaluation. The experimenter then noted that each participant would be dismissed separately from the experiment after the discussion phase.

Response order manipulation. The dependent measure phase began immediately after delivery of either the public or private evaluation context manipulation. Participants first responded to one practice question to familiarize them with the presentation and response formats. The practice question was "How much do you feel you have learned about the field of psychology from participating in psychology experiments?" (1 = not very much; 7 = very much). Immediately following the one practice question, the four questions comprising the response order manipulation were presented. Participants either answered the personal and situational attribution questions first followed by the bipolar measure of credit-blame and the reward assignment

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[12] In the public condition, the experimenter loudly opened and closed doors to the lab and played an audiotape at a loud volume from an unused cubicle. This extraneous noise was designed to lead participants to believe that people, in addition to the experimenter, were in the laboratory suite.

measure (Causal Attribution First condition) or the credit-blame and reward assignment questions appeared first followed by the causal attribution questions (Causal Attribution Last condition). The order of question presentation within each class of judgment (i.e., causal attribution vs. sanctioning evaluation) was counterbalanced across conditions.

Following the dependent measure phase, the experimenter visited each room and probed the participant for demand awareness and suspiciousness. An audiotaped debriefing was then delivered. At the end of the debriefing, participants were brought out into the main part of the laboratory so that the experimenter could ensure that participants completely understood the purpose of the study and the need to use deception. Finally, participants were reminded not to disclose the purpose of the experiment, thanked, and dismissed.

Results

Seven dyads were eliminated from data analyses due to the suspiciousness expressed by one member of one dyad, the refusal by two actors to participate as counsellors, and the remaining four dyads were removed either because of equipment failures or experimenter error. Unless otherwise specified, univariate analyses of variance were conducted on each dependent measure, treating all but the blocking factor as fixed factors. Actors and observers were functionally yoked with one another. Each observer saw and rated only one actor; each actor performed the counselling task in front of only one observer. Therefore, because actors' and observers' responses could have been affected by the pairing of particular actors with particular observers, the dyad was conceptualized as the most appropriate unit of analysis. To control for the variation due to the pairing of particular actors with particular observers, the design was conceptualized as a randomized block design, in which each actor-observer pair was treated as a block. The appropriate error term for the main effect of Evaluation Context, Response Order, and the 2-way interaction between these factors was Blocks (i.e., pairs) nested within these two factors. The appropriate error term for any source of variation involving Perceiver Role was the interaction between Blocks (nested within Evaluation Context and

Response Order) and Perceiver Role (Edwards, 1968). [13] The analysis of variance summary source tables are presented in Appendix B.[14]

Sex of the triad (actor, observer, confederate) was included as a factor in all of the initial analyses. Significant effects involving Sex are always reported, but no conclusions are based on these effects, because sex of the perceiver and sex of the confederate were experimentally confounded. If effects due to Sex were not significant, this factor was not included in subsequent analyses. [15]

Manipulation Checks

Participants' concerns with the accuracy of their responses were assessed in a pilot study (n = 24). These participants were asked: "How concerned were you with the

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[13] All of these analyses were conducted using the *ANOVAR* program of the *Statistical Package for the Social Sciences*. To ensure the accuracy of the output, several of the analyses were computed by hand. In addition, another analysis was done to demonstrate that the reported effects were independent of the particular pairs of actors and observers sampled in this study. The data were randomly split into two samples of 24 pairs each. Analyses of variance on the four major dependent measures were then conducted on each group separately. These analyses verified the effects reported herein, even though the degrees of freedom were reduced by half. A similar analysis was conducted on the data of Experiment 2 and revealed similar effects, with the exception of the personal attribution item, where none of the interactions was significant.

[14] The mean values for any effect significant at the .10 level or beyond are presented although conclusions are based only on those effects reaching the conventionally accepted .05 level.

[15] When Sex is included as a factor in the analysis, there are 40 degrees of freedom for the error term. Sex was not included in analyses where it did not yield a significant effect, yielding 44 degrees of freedom for the error term.

accuracy of your answers to all of the questions?" (1 = not very much, 7 = very much). Both actors (M = 6.00 vs. 5.75, respectively) and observers (M = 6.75 vs. 6.25, respectively) were somewhat more concerned with the accuracy of their responses in the private than in the public condition ($F < 1$). However, it can be seen that concern for accuracy was high overall (M = 6.19). On this basis, no accuracy concern measure was included in the main experiments.

An analysis of variance conducted on the verbal discussion manipulation check item showed that only the main effect of Evaluation Context was significant, $F(1,44)$ = 84.44, $p < .001$ (See Appendix B.1). Participants in the public condition (M = 5.06) indicated more that they would be discussing their answers with the team of psychologists than did participants in the private condition (M = 2.04). Only the main effect of Evaluation Context was significant on the measure designed to assess the extent to which participants felt their interpretations would be evaluated, $F(1,44)$ = 7.54, $p < .009$ (See Appendix B.2). Participants felt that they would be evaluated more in the public (M = 5.27) than in the private (M = 4.33) condition. The main effect of Evaluation Context failed to meet an acceptable level of significance on either the caution, $F(1,44)$ = 2.37, $p < .13$, or the modesty, $F(1,44)$ = 2.05, $p < .16$, items; no other effects approached significance on these items,

Fs(1,44) < 1.40 (See Appendices B.3 and B.4). Participants in the public relative to the private condition reported feeling only somewhat more cautious (*Ms* = 5.07 vs. 4.40, respectively) and somewhat more modest (*Ms* = 3.23 vs. 2.71, respectively).

Participants perceived actors to have moderately high choice (*M* = 4.38) over which set of counselling instructions could be used. No effects reached significance on this item, *Fs*(1,44) < 1, indicating that differential perceptions of choice across conditions cannot account for results on the major dependent measures (See Appendix B.5). The public vs. private nature of the evaluation context was not related significantly to which of the four counselling approaches actors chose, $X^2(3) = 3.91$, $p < .27$. The most-to-least frequently chosen approaches were: Indirect Rational (41.7%), Indirect Emotional (29.2%), Direct Rational (14.6%), and Direct Emotional (14.5%). Finally, the outcome of the counselling session was perceived as uniformly unsuccessful (*M* = 1.28) by participants across all experimental conditions, *Fs*(1,44) < 2.40, indicating that performance feedback was perceived as intended (See Appendix B.6).

Major Scale Response Dependent Measures

Causal attributions. An analysis of variance conducted on the person attribution item revealed only a significant Perceiver Role X Evaluation Context interaction, *F*(1,44) =

71.71, $p < .001$ (See Appendix B.7). As seen in Table 1, actors attributed the outcome significantly more to themselves in the private than in the public condition, whereas the opposite tendency was manifested by observers. [16]

An analysis of variance conducted on the situational attribution item revealed only a significant Perceiver Role X Evaluation Context interaction, $F(1,44) = 46.56$, $p < .001$ (See Appendix B.8). As seen in Table 1, actors made greater situational attributions when their responses were to be made public than when their responses were to kept private, whereas observers manifested the opposite tendency.

Because the personal and situational attributions made by actors, $r(44) = -.37$, $p < .009$, and observers, $r(44) = -.21$, $p < .16$, were negatively correlated, a personal-situational attribution index was calculated by taking the difference between scale responses to these two items. The resultant scale range on this index is +6 (highest possible personal attribution; lowest possible situational attribution) to -6 (lowest possible personal attribution; highest possible situational attribution). An analysis of variance conducted on the personal-situational index, revealed a significant main effect of Evaluation Context, $F(1,44) = 7.14$, $p < .01$, and a significant

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[16] All post-hoc comparisons employed Duncan's multiple range test, with an alpha level of .05.

Table 1

Mean Personal, Situational, and Personal-Situational Attributions as a Function of Perceiver Role and Evaluation Context (Experiment 1)

	Perceiver Role	
Evaluation Context X Item	Actor	Observer
Public		
Personal Attribution (1)	3.42_a	5.75_b
Situational Attribution (2)	5.79_a	4.18_b
Personal-Situational Attribution (1)	-2.38_a	1.57_b
Private		
Personal Attribution (1)	6.00_b	4.17_a
Situational Attribution (2)	4.12_b	5.17_a
Personal-Situational Attribution (1)	1.88_b	-1.00_c

Note. The higher the mean, the greater the (1) personal attribution or (2) situational attribution. The subscripts refer to post-hoc comparisons made among the means contributing to any one measure, not to comparisons among means across the measures. Means within an item sharing no subscripts in common differ significantly ($p < .05$) by Duncan's multiple range test.

Perceiver Role X Evaluation Context interaction, $F(1,44) = 113.86$, $p < .001$ (See Appendix B.9). Greater situational than personal attributions were made in the public ($M = -.41$) than in the private ($M = .44$) condition. However, as seen in Table 1, this index bears out the tendency of actors to make greater situational than personal attributions in the public condition, whereas the opposite pattern emerged for actors in the private condition. Observers, on the other hand, tended to make greater personal than situational attributions in the public condition, a tendency that was reversed in the private condition.

As seen by the index scores, observers and especially actors tended to manifest less moderation in the public relative to the private condition. This index obscures, however, the specific items contributing to moderation. That is, although actors "moderated" less in the public condition on the index, this seems to be due to the high situational attributions made by them in this condition. Actors' personal attributions in the public condition deviated little from the scale midpoint. Conversely, their personal attributions were more extreme in the private condition, relative to their situational attributions in this condition, or their personal attributions in the public condition. Observers manifested the opposite tendency. Observers' personal attributions were more extreme in the public relative to the private condition, whereas the

opposite tendency emerged for their situational attributions.

Sanctioning evaluations. The mean ratings of sanctioning evaluation partitioned by the significant Perceiver Role X Evaluation Context interactions on each of the items reported in this section are presented in Table 2. An analysis of variance conducted on the bipolar measure of credit-blame revealed a significant Perceiver Role X Evaluation Context interaction, $F(1,44) = 43.91$, $p < .001$. As seen in Table 2, actors accepted less blame for failure when their judgments were to be made public than when their judgments were to be kept private, whereas observers manifested the opposite tendency.

This analysis also revealed a significant 3-way interaction among Perceiver Role, Evaluation Context, and Response Order, $F(1,44) = 7.92$, $p < .007$ (See Appendix B.10). As shown in Table 3, the order in which participants made their judgments modified the extent of this relationship, such that for actors and observers the difference between public vs. private conditions was reduced when judgments of blame were solicited after, rather than before, judgments related to causal attribution. For actors, higher judgments of blame occurred in the public/causal attribution first and private/causal attribution last conditions, relative to the remaining two conditions. For observers, on the other hand, higher

Table 2

Mean Assignments of Blame, Actor and Client Responsibility, and Reward as a function of Perceiver Role and Evaluation Context

(Experiment 1)

	Perceiver Role	
Evaluation Context X Item	Actor	Observer
Public		
Credit/Blame (bipolar)	3.29_a	5.04_b
Credit/Blame (unidirectional)	3.17_a	5.08_b
Actor Responsibility	3.21_a	5.39_b
Client Responsibility	4.96_a	4.33_b
Actor-Client Responsibility	-1.75_a	1.06_b
Reward Assignment	3.63_a	2.88_b
Private		
Credit/Blame (bipolar)	5.00_b	3.71_a
Credit/Blame (unidirectional)	4.96_b	3.54_a
Actor Responsibility	4.67_b	3.38_a
Client Responsibility	4.00_b	5.38_a
Actor-Client Responsibility	$.67_b$	-2.00_a
Reward Assignment	2.42_b	4.00_a

Note. The higher the means, the greater the blame or responsibility assigned to the actor, the greater the assigned client responsibility, or the greater the assigned reward. The subscripts refer to post-hoc comparisons made among the means contributing to any one measure, not to comparisons among means across the measures. Means for each measure sharing no subscripts in common differ significantly ($p < .05$) by Duncan's multiple range test.

Table 3

Mean Assignment of Credit/Blame (Bipolar Measure) as a function of Perceiver Role, Evaluation Context, and Response Order (Experiment 1)

	Perceiver Role X Evaluation Context			
	Actor		Observer	
Response Order	Public	Private	Public	Private
Causal Attribution First	3.67_{ab}	4.75_{cd}	4.83_{cd}	4.17_{bc}
Causal Attribution Last	2.92_{a}	5.25_{d}	5.25_{d}	3.25_{a}

Note. The higher the mean, the more blame ascribed to the actor. Means sharing no subscripts in common differ significantly ($p < .05$) by Duncan's multiple range test.

judgments of blame occurred in the public/causal attribution last and private/causal attribution first conditions, relative to the remaining two conditions. Post-hoc comparisons made among these means, however, revealed that actors' ascriptions of blame in the public relative to the private condition were not significantly affected by the order in which questions were presented. Only observers' ascriptions of blame in the private condition were significantly increased by asking causal attribution questions first. It can also be seen that actors' and observers' ascriptions of blame did not differ significantly in the private condition, when the causal attribution questions preceded this blame question.

In response to the unidirectional credit-blame item, only a significant Perceiver Role X Evaluation Context interaction was found, $F(1,44) = 66.02$, $p < .001$ (See Appendix B.11). The mean ratings of credit-blame on the unidirectional measure are also presented in Table 2. In response to the actor responsibility question, significant 2-way interactions between Perceiver Role and Evaluation Context, $F(1,44) = 46.41$, $p < .005$, and between Response Order and Role, $F(1,44) = 4.91$, $p < .03$, were obtained (See Appendix B.12). Actors attributed more responsibility to themselves when the causal attribution questions followed rather than preceded the sanctioning evaluation questions (*M*s = 4.25 vs. 3.63, respectively). Observers manifested

the opposite tendency (*M*s = 4.13 vs. 4.63, respectively). However, only the causal attribution first/actor mean (*M* = 3.63) was significantly different from the remaining three means.

In response to the client responsibility question, significant Response Order X Evaluation Context, $F(1,44) = 5.02$, $p < .03$, and Perceiver Role X Evaluation Context, $F(1,44) = 18.83$, $p < .001$, interactions were found (See Appendix B.13). Ascriptions of client responsibility were greater in the private than in the public condition when the causal attribution questions were asked first (*M*s = 5.25 vs. 4.75, respectively), whereas ascriptions of client responsibility were lower in the private than in the public condition when the causal attribution questions were asked last (*M*s = 4.13 vs. 4.54, respectively). However, only the causal attribution last/private mean (*M* = 4.13) was significantly different from the remaining three means.

An analysis of variance conducted on an index of the difference between ascribed client and actor responsibility (+6 = highest actor, lowest client responsibility attribution; -6 = lowest actor, highest client responsibility attribution) revealed a marginally significant Evaluation Context X Response Order interaction, $F(1,44) = 3.94$, $p < .055$, and a significant Perceiver Role X Evaluation Context interaction, $F(1,44) = 67.64$, $p < .001$ (See Appendix B.14). However, comparisons among the four

means contributing to the Response Order X Evaluation Context interaction revealed that responsibility was attributed significantly more to the client only in the private/causal attribution last condition (M = -1.25) relative to the private/causal attribution first (M = -.08), public/causal attribution first (M = -.54), and public/causal attribution last (M = -.17) conditions.

It can be seen in Table 2 that the Perceiver Role X Evaluation Context interactions yielded a consistent pattern of results across the various sanctioning evaluation measures, with actors accepting more personal responsibility in the private relative to the public condition and observers assigning more personal responsibility to the actor and less personal responsibility to the client in the public relative to the private condition.

The final scale response measure to be considered in this section concerns participants' perceptions of how much reward the actor deserved for his/her performance on the counselling task. The analysis of variance conducted on the reward item revealed a significant main effect of Response Order, $F(1,44) = 9.97$, $p < .003$, and a significant Perceiver Role X Evaluation Context interaction, $F(1,44) = 11.71$, $p < .001$ (See Appendix B.15). Less money was awarded the actor when this measure was collected after the causal attribution measures (M = 2.81) than prior to the attribution measures (M = 3.65). As seen in Table 2, the reward assignment

measure was also sensitive to the same response tendencies manifested on the relatively less concrete measures of credit-blame and responsibility.

Response Latency and Order Effects

As indicated above, Response Order was not consistently effective in eliciting different scale responses to questions designed to assess participants' perceptions of the causes of the actor's performance or to questions related to sanctioning evaluation. Response Order was expected to have its major impact on the length of time participants took to scale their attribution and achievement evaluation judgments. The analysis of the response latency data revealed significant main effects of Perceiver Role, $F(1,40) = 6.96$, $p < .01$, Type of Question, $F(3,120) = 27.77$, $p < .001$, and significant 2-way interactions between Perceiver Role and Evaluation Context, $F(1,40) = 5.94$, $p < .02$, and Response Order and Type of Question, $F(3,120) = 5.93$, $p < .001$ (See Appendix B.16). [17] A description of the Perceiver Role X Evaluation Context interaction is presented in a later section (See Table 5). The Type of Question main effect revealed that the reward assignment measure yielded the shortest overall response latency ($M = 8.47$), the bipolar credit-blame measure the longest overall response

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[17] This analysis also revealed a significant Sex X Response Order X Type of Question interaction, $F(3,120) = 3.16$, $p < .03$. The means for this effect are presented in Appendix C.1.

latency (M = 14.77), and the personal (M = 11.39) and situational (M = 12.92) attribution measures intermediate response latencies. Only the latter two means were not significantly different. An analysis of variance conducted on the average of the two attribution item response latencies vs. the average of the two sanctioning evaluation item response latencies also revealed a significant main effect of Perceiver Role, $F(1,44) = 6.65$, $p < .04$, and significant Perceiver Role X Evaluation Context, $F(1,44) = 5.67$, $p < .05$, and Question Type X Response Order interactions, $F(1,44) = 4.76$, $p < .03$ (See Appendix B.17). Table 4 presents the mean response latencies for the Question Type X Response Order interactions on the four separate measures as well as on the average response latencies to the two attribution measures and the two measures related to sanctioning evaluation.

These results most likely reflect the effect of practice on participants' response latencies, although this explanation is weakened somewhat by certain comparisons (e.g., the facts that the longest and shortest response latencies occurred for the credit-blame and reward assignment items, respectively, regardless of response order). Although practice may account for the interaction, it is noteworthy that response latencies to the sanctioning evaluation questions were indeed shorter when they followed rather than preceded the causal attribution questions. The

Table 4

Mean Response Latencies to Attribution and Sanctioning Evaluation Questions as a function of Response Order (Experiment 1)

	Question-Type			
Response Order	Personal Attribution	Situational Attribution	Credit/ Blame	Reward Assignment
Causal Attribution First	10.80_{abc}	13.70_{cd}	13.68_{cd}	8.33_{a}
	(12.25)	(11.00)		
Causal Attribution Last	11.98_{bc}	12.14_{bc}	15.85_{d}	8.61_{ab}
	(11.19)	(12.23)		

Note. The higher the mean, the longer the response latency (in secs). Means within parentheses reflect the average response latency to each judgment class (attribution vs. sanctioning evaluation). Mean response latencies sharing no subscripts in common differ significantly ($p < .05$) by Duncan's multiple range test.

same effect is not as true of the causal attribution questions. Although the effects might have been stronger, these results are at least consistent with the idea that causal attributions facilitate sanctioning-related assessments of a person's behavior. The other noteworthy aspect of these results is the fact that the bipolar measure of credit-blame yielded the longest overall response latencies. This most likely reflects the difficulty participants' had in interpreting this question, an explanation that was supported by the results of Experiment 2 and by participants' complaints about the wording of this item.

Table 5 presents the mean response latencies for the Perceiver Role X Evaluation Context interaction. Although actors responded faster overall (M = 10.46) than did observers (M = 12.88), it can be seen in Table 5 that this effect was statistically reliable only in the public condition. Interestingly, moreover, actors responded faster to the attribution and sanctioning-related questions within the public relative to the private condition, whereas observers responded faster to these questions within the private relative to the public condition.

Correlational Analyses

Pearson product moment correlations were computed on the major dependent measures. Correlations were computed among the major dependent measures separately for actors and

Table 5

Mean Response Latencies as a Function of Perceiver Role and Evaluation Context (Experiment 1)

	Perceiver Role	
Evaluation Context	Actor	Observer
Public	9.52_a	14.18_b
Private	11.39_c	11.58_c

Note. The higher the mean the longer the response latency (in secs). Mean latencies sharing no subscripts in common differ significantly ($p < .05$) by Duncan's multiple range test.

observers, as well as comparing actors' and observers' responses to the major dependent measures. As seen in Table 6, the various measures of causal attribution and sanctioning evaluation were significantly correlated in the expected directions. The client responsibility item yielded the weakest overall relationship to the other measures. As will be seen below, however, actors and observers differentially took into account their perceptions of client responsibility when they evaluated both the causes of the actor's performance and the actor's deservingness of reward.

Table 7 presents the item intercorrelations for actor participants. As seen in Table 7, actors' personal attributions were significantly positively correlated with their assessments of credit-blame and self-responsibility, but not with their assessments of reward assignment or client responsibility. Conversely, actors' situational attributions were negatively correlated with their personal attributions and judgments of credit-blame, and self-responsibility, but were positively correlated with their assignments of reward. Actors' judgments of credit-blame were negatively correlated with their perceptions of deservingness and positively correlated with their ascriptions of self-responsibility. These interrelationships are interesting, as they suggest that there is not a unidirectional predictive relationship among

Table 6

Principal Intercorrelations

(Experiment 1)

Variable	1	2	3	4	5	6
1. Personal Attribution	-	-.30*	.40*	-.26*	.45*	-.19
2. Situational Attribution		-	-.48*	.37*	-.51*	.20*
3. Credit/Blame			-	-.43*	.39*	-.35*
4. Reward Assignment				-	-.21*	.45*
5. Actor Responsibility					-	-.14
6. Client Responsibility						-

Note. All correlations are based on n = 96. All correlations with a superscript (*) are significant at $p < .05$ or beyond.

Table 7

Principal Actor Intercorrelations

(Experiment 1)

Variable	1	2	3	4	5	6
1. Personal Attribution	-	-.37*	.45*	-.20	.49*	-.05
2. Situational Attribution		-	-.54*	.44*	-.58*	.17
3. Credit/Blame			-	-.43*	.43*	-.23
4. Reward Assignment				-	-.19	.40*
5. Actor Responsibility					-	-.04
6. Client Responsibility						-

Note. All correlations are based on n = 48. All correlations with a superscript (*) are significant at $p < .05$ or beyond.

causal attribution, perceptions of credit-blame, and reward assignment. Actors' assessments of credit-blame corresponded with their perceptions of personal causal responsibility which, in turn, are reflected in their perceptions of reward deservingness. However, perceptions of deservingness for failure seem to be related more to being able to identify situational factors as causes of failure. Perceptions of client responsibility were significantly correlated with only their perceptions of reward deservingness. This further supports the interpretation that actors were reasoning that they deserved more reward the more failure was due to some aspect of the situation.

Table 8 presents the results of the correlational analyses for observers. The observer-based correlations present a similar picture to that portrayed for actors, with two major exceptions. First, observers' perceptions of reward deservingness were significantly negatively correlated with their personal attributions. Secondly, observers' perceptions of client responsibility were more highly related to other judgments of responsibility and causal attribution.

Table 9 presents the intercorrelations among actors' and observers' causal attributions and responsibility assessments. As seen in the main diagonal of Table 9, only two correlations were significant, viz., observers' personal

actor's assessments or the psychologists-supervisors' assessments of the actor's performance. The replication experiment provided results compatible with this idea.

It would be interesting to determine in future research whether the nature of the task context significantly affects the extent to which actors and observers rely on outcome valence and the available causal information. Very little research has examined this idea with observers (e.g., Weiner & Peter, 1973) and no research has examined this idea within the same study with actors. It would also be interesting to determine whether the observers own level of involvement in the situation affects the extent to which they rely on outcome valence and causally-relevant information and the extent to which they evaluate actors harshly. There is some empirical precedence for the suggestion that observers respond less harshly when they too will perform a similar task (Chaikin & Darley, 1973; Sherrod & Farber, 1974). In the present study, observers may have responded less harshly had they expected to counsel the client.

CHAPTER IV

Summary and Conclusions

Participants in the present experiment were asked to make causal attributions for, and sanctioning evaluations of, actors' performance on an interpersonal task, i.e., a task in which the actor's behavior had implications for the well-being of another individual. The results of both experiments indicated that attribution was reliably related to participants' evaluations of task performance. These results and the failure to find consistent effects of response order suggest that evaluations of task performance are affected reliably by the perceived causes of success and failure. It would be interesting to determine in future research if changes in the interpersonal vs. intrapersonal nature of the task affected what standards of evaluation are salient to the perceiver. For example, the causal antecedents of an outcome may be less important than outcome valence or extremity in determining the resultant sanctioning evaluations if the behavior observed was of an interpersonal nature. This pattern of results would be consistent with Kelley's (1971) *reality* standard of moral evaluation. Alternatively, the causal antecedents of an outcome may be very important in determining the sanctioning evaluations offered for intrapersonal behaviors. This pattern of results would be compatible with Kelley's *achievement* standard of moral evaluation.

The results of both experiments also revealed that evaluation context significantly affected the attributions and evaluations of actors and observers. Actors' failure to make self-serving attributions under private conditions indicates that there is a need to re-examine the assumption that actors are motivated to protect their private self-esteem. Furthermore, the finding that self-attributions and -evaluations in the public condition were compatible with a self-aggrandizing response tendency indicates a need to consider whether these response tendencies are viewed as self-aggrandizing by actors and whether actors perceive that others share this or a different view.

The fact that observers responded harshly toward actors could be interpreted as support for the idea that observers felt threatened by the actors' outcome and were responding in a manner designed to undermine this threat (e.g., Shaver, 1970). If this observation is valid, then past research may have underestimated potential motivational influences on even uninvolved observers. There may be a need to reconsider whether defensive processes on the part of observers are engaged only when the observer is an active participant in the situation or when actors' and observers' outcomes are negatively correlated. At the same time, other aspects of the results suggest that defensiveness is not the best way to interpret observers' reactions to actors. Most

notably, observers responded less harshly toward actors in the private condition of the first experiment and the replication experiment. These results suggest that observers were less affected by defensive concerns than they were by self-presentational concerns. This suggestion, and the idea that the interpersonal vs. intrapersonal nature of the observed behavior will affect the standard adopted by perceivers, should be investigated in more detail.

The traditionally reported actor-observer difference was found in a public evaluation context condition only. This result suggests that the actor-observer difference may be more of a function of the impressions perceivers wish to make on others, than of a motivated bias by actors to protect or enhance their private self-esteem or of a bias on the part of observers to be moderate in the attributions made. The actor-observer difference was shifted significantly in the private condition, in which perceivers did not expect as much that they would be evaluated. Concerns for accuracy and modesty were ruled-out as explanations of the effects of evaluation context. It was suggested that more research is needed to determine how variations in the nature of the public evaluation context affects perceivers' attributional and evaluational assessments. Also left for future research is the determination of how and why perceivers' public and private assessments may differ.

The results of the second experiment revealed that self-serving attributional biases were reduced by conditions of low causal ambiguity, but were facilitated by conditions of high causal ambiguity. These results supported Snyder et al.'s (1978) view of attributional egotism. Furthermore, consistent with the causal ambiguity interpretation of conflicting findings in the equity and self-attribution research areas, actors offered sanctioning evaluations compatible with the provided causally-relevant information. Low causal ambiguity also appropriately affected observers' attributions and evaluations, a result that is consistent with past research (cf. Frieze, 1976; Weiner et al., 1978)

Despite confirmation of these ideas, the actor-observer difference was not reduced by conditions of low causal ambiguity. This finding suggests that both attributional and evaluational conflict will be difficult to resolve by an outside agent who disambiguates the causal context for perceivers. In addition, perceivers' inaccurate attributional projections suggests that attributional conflict between actors and even uninvolved observers will not be easily resolved. Observers seems to be 'aware' of the various response tendencies that past research suggests should exist within actors. Within the present context, however, observers were simply wrong. A task for future research is to assess why observers make the assumption that actors will try to protect or enhance their self-esteem

under private conditions. Related to this task, more precise assessments need to be made of what conditions engage various concerns (e.g., accuracy, modesty, defensibility) on the part of actors and observers.

Perhaps the most important issue raised by the present research is how the nature of the paradigms employed in social psychological research may affect the obtained results and the conclusions drawn about the phenomenon of interest. Many different paradigms have been used in the work on self- and other-attribution. Many of the conflicting results can be traced to these different paradigms. If one thing is clear from the present results, it is that the nature of the context may importantly affect the attributions and evaluations expressed and believed by participants. More attention needs to be given to what factors contribute to the significant between-paradigms variance. This, unfortunately, is not what typically happens in social psychological research. Rather attention is usually focused on minimizing the error variance introduced by one paradigm relative to another.

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Appendix A.1

Audiotaped Instructions to Participants

(Experiment 1)

"Please listen carefully to my instructions. This experiment is one of a series of experiments being conducted jointly by the Psychology Department and the University of Alberta Student Counselling Service. Every type of health care, as you know, has grown increasingly expensive over the past few years. The Federal Department of Community Mental Health, through Student Counselling, is studying ways of reducing expenses for mental health services while maintaining a high quality of care. Community Mental Health decided that the first place to try to cut expenses was in the type of care provided for people with relatively minor problems -- for example, people who would come to walk-in type counselling centers like the University of Alberta Student Counselling Service. Of course, in any type of counselling situation, counsellors spend time with the client. Up until now these counsellors have had at least a master's or a doctorate degree and of course they have commanded fairly high salaries. One question being asked by Community Mental Health is whether the same quality of care can be provided by volunteer counsellors who have had a minimum of professional training. There is, in fact, some research on this idea and the major findings show that volunteer counsellors who have had experience with a problem

like the client's actually perform just as well as trained clinicians. We are following up these findings in this study; our primary question being how well students with minor problems can be treated by student counsellors.

Most of the students who come to Student Counselling come to work out their problems either with interpersonal relations or anxiety about course work. To help these students, Student Counselling usually uses a process called guided desensitization. Briefly, guided desensitization refers to a process where a counsellor verbally and gradually guides the student in thinking about aspects of the problem, while helping the student calm down and relax. It has been found that getting the student to relax and to simply imagine overcoming aspects of the specific problem can be the key to working out the problem. That is, counsellors who can get people to relax in just a short period of time perform well even if they have had no background information about the client and are not in physical face-to-face contact with the client. In this study we would like for one of you to take the role of a student counsellor and deliver a set of desensitization instructions to a student who has a problem with test anxiety. We would like the other person to take the role of an observer watching the counsellor deliver these instructions to a text-anxious student. As you can see on your table, each of you has been randomly assigned to either

the student counsellor or the observer role. We need both student counsellors and observers in the study to assess different perspectives on our research problem.

Student Counselling has arranged for some of their clients to take part in the study. All of the referred clients are students like yourselves, but they have some problems coping with examination situations. In over 90% of the cases this anxiety is ill-founded. That is, most of these students are of at least average intelligence and they actually need not fear failing their exams. The referred clients have been fully informed about the nature of the study and they are aware of the fact that students will be administering the desensitization instructions. They have volunteered to participate primarily because they know that fellow students, who should be able to relate to being anxious about exams, are going to try to help them relax. The client scheduled for this session should arrive soon and will be seated at the desk that you will see over your monitors. Because this situation is potentially embarrassing to the client, we try to insure that the client interacts primarily with the experimenter. This is why we have scheduled the client to arrive after all participants have arrived and have been seated in their individual rooms. If either of you happens to know the client who arrives for this session, I will ask you to refrain from completing the experiment. In the event of prior acquaintanceship, I will

give you another task to complete.

When the client arrives I will attach a set of electrodes to the client's left hand. These electrodes are interfaced with an auxiliary electropolygraph recorder designed to measure muscular relaxation. This measure is an indirect, but reliable measure of psychological relaxation. This means that the greater the level of muscular relaxation exhibited by the client during the course of the therapy, the more positive the effects of the therapy. Conversely, the greater the tension manifested the more negative the effects of the therapy. Both of you have a meter on your table which will serve as an indicator of how relaxed or tense the client becomes during the course of the therapy. Depending on how the therapy session goes, the client may end up feeling very relaxed, very tense, or somewhere in between tense and relaxed. A high level of relaxation would be indicated by the needle moving toward the number 1 on your scale, whereas a high level of tension would be indicated by the needle moving toward the number 10 on your scale. Right now both of your meters are off. I will connect your meters to the electropolygraph recorder near the beginning of the counselling phase. Before we begin the counselling phase, I will be collecting what we call baseline relaxation data from the client so that we can make sure that we don't begin the counselling phase until the client's level of muscular relaxation is just about at the

middle of the scale.

Two preliminary tasks must be completed, however, before the counselling session begins. First, we need a measure of the counsellor's natural level of social sensitivity. In a minute I wil give the counsellor a test to complete. This test will measure the counsellor's ability to relate to people on an interpersonal level. The social perceptiveness test is a very well-validated measure of social sensitivity. We need data from this test to be able to see how effective the counselling itself is in relation to the counsellor's natural ability to relate to people. After the counsellor has completed this test, I will give the counsellor a description of the four most successful types of available desensitization instructions from which the counsellor is to choose the one with which the counsellor personally feels the most comfortable and the one that the counsellor personally believes will be the most effective. Counsellor: You have complete choice over the counselling instructions that you use, so please make this choice very carefully.

Before I distribute these materials, I would like to say some things about the actual counselling phase. Before the beginning of the counselling phase, I will give the person designated to be the counsellor a copy of the counselling instructions that that person chose. The outline will consist of several major points. The number of

major points on the outline will depend on the particular outline chosen by the person designated to be the counsellor. In any event, each major point should be made in the order in which it appears on the outline. After each point is made, the counsellor should pause to look at the meter and make a mental note of what effect the counselling has had on the client up to that point in time. It is important that the counsellor elaborate on each of the points by adding whatever information the counsellor believes is necessary to reinforce the meaning of the point to the client. In other words, the counsellor may want to restate the point in a slightly different manner or with a slightly different emphasis. During the counselling phase the counsellor should speak clearly into the microphone, although there is no need for the counsellor to hold the microphone. The counsellor should spend no more than three minutes on each page of the counselling instructions. After the counsellor is finished with these instructions, the counsellor should ask the client how he or she feels. As soon as this one question had been answered, I will terminate the counselling session immediately and after this I will dismiss the client from the experiment. Before we begin the counselling phase I will give the counsellor a signal to begin the counselling instructions. Please do not begin until I have given the signal.

At this time I am going to distribute the social perceptiveness test and a copy of the available counselling instructions. The person designated to be the counsellor is to complete both of these tasks. I will also give copies of these materials to the observer, although the observer is not to complete these. I will distribute these materials in a moment."

"The initial tasks are finished, I have several other points to make before we begin the counselling phase. As you can see over your monitors, the client has been seated in a comfortable chair and is awaiting the counselling phase. As you can see on your meters, the client's level of muscular relaxation is just about at the middle of the scale -- meaning that the client is neither completely relaxed nor completely tense at this time. The counsellor should prepare to begin the counselling instructions. Counsellor, please remember that you are to spend no more than one minute on each point of the outline and you are to complete the entire outline. It is important for you to pause for about 10 seconds after each point is made to look at your meter so you can see how the client is feeling at that point in time. Finally, after you have asked the client the question about the client's feelings I will dismiss the client from the experiment and we will go on to the next experimental phase. I have to switch the audio system over to the counsellor's microphone so the counsellor should

count very slowly, but silently to twenty and then begin the counselling instructions."

"As you can see over your monitors, the client has been dismissed from the experiment. At this time we are going to evaluate the counsellor's performance on the counselling task. In a few minutes, several questions will appear on your screen. The experimenter will read each question aloud. Please read the question along with the experimenter. Each question will appear on your screen for a fixed period of 30 seconds. After each question has been read to you, please think about how you want to answer the question. Then, after the 30-second period elapses, please indicate your response by depressing one of the seven keys on your response panel. There is no way to correct a mistake on your response panel, so please be sure to depress only that key that best represents your answer.

Some of the questions refer specifically to the student counsellor. These questions should be interpreted by the student counsellor as referring to him or her and should be interpreted by the observer as referring to the person that delivered the counselling instructions. Other questions are the reference you. These questions should be interpreted by the student counsellor as referring to him or her and by the observer as referring to him or her. Please remember that you are not to answer a question unti the entire question has been read to you and until you are sure of how you want

to respond. Finally, remember that you are to answer every question." (either the public or the private evaluation context instructions were delivered at this point in time)

Appendix A.2

SOCIAL PERCEPTIVENESS SCALE

INSTRUCTIONS

This is a test of your ability to discern a person's characteristics from information provided using a standard clinical format. We have obtained copies of case histories for you to read and assess. Your results will be compared to those provided by working counsellors who have received the same information that you have received. We have always found in the past that a person's social perceptiveness score is highly correlated with the person's general level of ability, that is, the more socially perceptive a person is, the better that person also performs on a variety of aptitude tests.

This is a *timed* test. I will give you three minutes to work on the case.

At this time you are to read the attached case. After you read the case, you are to complete the attached questions. Work quickly and try to be as incisive and accurate as you can.

Case No. 213

Background Information:

Name:	Andrew
Age:	26
Sex:	M
Marital Status:	single
Date of Birth:	July 21, 1953
Place of Birth:	Vancouver, B.C.
Occupation:	Grad Student (Phys. Ed.)
Education:	Grad Student (Phys. Ed.)
Father's Name:	Howard
Father's Occupation:	Doctor
Mother's Name:	Ruth
Mother's Occupation:	Teacher

I. Personality

Andrew's days were full of events from most of which he received satisfaction and pleasure. His mood could best be described as playful. From rare experiences of dejection his spirits tended to bounce back quickly. He once specified the condition most conducive to furious anger: "when I think some injustice has been done."

II. Intellectual Characteristics

Standard intelligence tests placed Andrew in the *very superior* category with an I.Q. of 130; performance on different parts of the test showed a fairly even distribution of skills with no areas of marked weakness.

III. Social Skills and Attitudes

It was plain from his high school record and from our own observation of his behavior that Andrew was unusually sociable. Companions and friends were involved in almost everything that he did; in fact, he expressed a definite distaste for being alone, and it was the memories of loneliness as a child that upset him the most about his childhood. His friendships with both men and women tended to be of long duration.

IV. Evaluations of Andrew by some of his acquaintances.

Evaluation #1

Name:

Occupation: Professor of History

"Andrew was a student in one of my second-year university history classes. The main thing that struck me about him was his talkativeness. He was very active in class discussion, and generally prepared his assignments conscientiously. One thing that he did that troubled me somewhat, however, is that he was often somewhat rigid in his views and refused to listen to the ideas of the other students. This is a problem that he will probably overcome as he matures. He asked me to write him a recommendation for graduate school and I gave him a fairly good one.

Evaluation #2

Name:

Occupation: Physio. Therapist.

"I dated Andrew for about 8 months during our last year at University. We saw each other steadily during this time. Then, he began to lose interest. He said that he thought it would be better for both of us if we dated others. This made me feel very bad at the time, but in the long run, I think he was right. We really weren't very well suited for each other. He was often inconsiderate and rude, and we often had difficulty communicating. Also, his views on sex were somewhat exploitative--I really resent that now."

SOCIAL PERCEPTIVENESS SCALE

Official Questions. Summarize your impressions of the person described within the attached case number; try to be as incisive and accurate as you can.

1. How politically liberal or conservative do you think the person is?
   a. very liberal
   b. about as liberal as most people
   c. very conservative

2. What do you estimate the person's self-esteem to be?
   a. very high
   b. about average
   c. very low

3. Do you think that the person is capable of dealing with severe criticism from superiors?
   a. definitely
   b. about as much as most people
   c. definitely not

4. If the person found a wallet on the street containing about $20.00, would the person return the wallet?
   a. definitely
   b. the person would probably return the wallet, but keep the money
   c. definitely not

5. How do you think the person feels about abstract art?
   a. would dislike it very much
   b. would like it as well as most people
   c. would like it very much

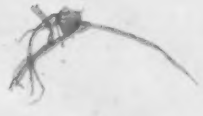
6. Would you say that the person is the kind of person who could be manipulated by others?
   a. definitely
   b. about as much as most people
   c. not at all

7. Is this the type of person who would brag about his/her accomplishments?
   a. Yes, probably a lot.
   b. Yes, but only about as much as most people.
   c. No, probably never

8. How do you think the person would feel if he/she met a group of people for the first time?
   a. very comfortable
   b. about as comfortable as most people
   c. very uncomfortable

9. How comfortable would this person feel living in a large city (e.g., Montreal, Toronto, New York, Chicago)?
   a. very comfortable
   b. about as comfortable as most people
   c. very uncomfortable

10. How likely is it that this person will have severe psychiatric problems?
    a. very likely
    b. very unlikely



Appendix A.3

AVAILABLE COUNSELLING OUTLINES

STUDENT COUNSELLOR:_____ SEX: _____

CLIENT:_____

SESSION #:_____

DATE:_____

The following is a brief description of the four types of counselling guides that can be employed by you during the counselling session. Please read over the descriptions and select the outline: (a) that you would feel most comfortable using and (b) that you believe would be the most effective outline to use with you as the counsellor.

Put an 'X' next to the approach you wish to use.

_____1. *Direct Emotional Approach*

A procedure in which the client is directly led by the counsellor to an immediate confrontation with his/her irrational fear.

_____2. *Indirect Emotional Approach*

A gradual approach to dealing with one's phobias in which the client is carefully guided by the counsellor.

_____3. *Direct Rational Approach*

An immediate confrontation with the phobic reaction is brought about on a conceptual level under the counsellor's direction.

_____4. *Indirect Rational Approach*

A procedure in which the client is guided by the counsellor to a gradual conceptual understanding of his/her irrational fear.

Appendix A.4

COUNSELLING INSTRUCTIONS

Please read over these instructions. When you deliver these instructions you are to make each point deliberately and in the order in which it appears in the outline. You may restate the point or make it in a slightly different way and/or with a slightly different emphasis, because factors like tone of voice can be crucial in relaxing the client.

POINT ONE:

Therapist: In this session, I am going to try to help you understand and cope with your emotions. In particular I will assist you in coping with your feelings about taking tests. Now, I would like you to relax your whole body. Take a deep breath and try to make your body completely limp and relaxed ...

(*Possible additions*: (1) Let your arms fall limp into your lap; position your legs so that they are comfortable. (2) Close your eyes; take a very deep breath and feel how tense your chest becomes. Now exhale slowly. Feel the warm sensation of relaxation across your chest. (3) Try to feel as calm and pleasant as possible.)

POINT ONE:

Therapist: You should be starting to feel relaxed now. I am going to present a number of scenes to your imagination which you should picture very clearly in your mind. First, I want you to imagine a beautiful tropical beach scene, a mountain scene, or some place you have been where you felt great calm, tranquility, and enjoyment. Now, just relax ...

(*Possible additions*: Mention specifics of the imagined scene, e.g., sun brightly shining, warm refreshing breeze, minimal extraneous noises, etc.)

POINT THREE:

Therapist: Now imagine that you have just begun a new course of your choice. The professor has explained that the first test will be in one month. You feel secure and motivated because you know that the best way to prepare for a test is a gradual accumulation and repetition of the material over an extended period of time. You feel that you have the advantage. Now take a deep breath. You feel relaxed and

perfectly at ease ...

(*Possible additions*: remind patient of the previously mentioned relaxing scenes; remind patient to breathe deeply and exhale slowly.)

POINT FOUR:

Therapist: Now imagine that you are home studying in the evening. It is two weeks before the exam. You are breathing normally. You have kept up with the assignments and you feel very secure. Now it is one week before the exam. Relax, you are in complete control ...

(*Possible additions*: Add whatever you believe is necessary.)

POINT FIVE:

Therapist: Your whole body is limp. You feel as if you could float away. It is four days before the exam. You feel no threat. You look forward to the chance to demonstrate your scholastic ability. Relax ...

(*Possible additions*: Add whatever you believe is necessary.)

POINT SIX:

Therapist: It is now the day before the exam. You have already set aside time for a general review. Your thinking is steady and deliberate. It is now the night before the exam. You have studied thoroughly and you sleep very soundly, because you are confident and secure. Relax, relax. As you rise in the morning, you feel refreshed and sure of yourself. There is no need to hurry. You have planned plenty of time. Take a deep breath ...

(*Possible additions*: Add whatever you believe is necessary.)

POINT SEVEN:

Therapist: On your way to the university you are at ease. You're walking across campus towards the building where the examination will be held. The building becomes larger as you walk toward it. As you enter the building you still feel calm. You remember the tranquil scene you imagined earlier and you feel relaxed. You wait before the unopened doors of the examination room. You are calm ... You are now awaiting the distribution of the exam. Breath deeply ...

(*Possible additions*: Add whatever you believe is necessary.)

POINT EIGHT:

Therapist: The professor arrives with the stack of examination papers and begins to distribute them. You watch the other students as they receive their examinations. Finally, you receive your examination. You feel an inner glow of confidence. You are not afraid. Close your eyes, inhale and exhale slowly several times. Relax ...

(*Possible additions*: Emphasize feelings of pride, peace, and accomplishment that patient should experience.)

POINT NINE:

Therapist: You look at the examination lying face down before you. You're wondering if you studied the right things and if you'll remember all the answers you memorized the night before. You're also wondering if your classmates studied longer than you did. But you feel calm because you know you've studied as hard as you could.

(*Possible additions*: Add whatever you believe is necessary.)

POINT TEN:

Therapist: You turn the paper over and read the first question. (Pause briefly.) You know that you can answer this question. As you write your response, you feel calm and proud of yourself. You proceed to answer the other questions on the examination. While some of your responses are better than others, you feel confident that you will receive a good grade. You feel relaxed and happy as you turn in your paper.

Pause for a moment. Then inform the patient that the session is finished. Finally, ask the patient to verbalize how (s)he feels.

Appendix A.5

Dependent Measures

(Experiment 1)

1. "Now that the counselling session is over, to what extent do you feel that the outcome of the counselling session was a success?" (1 = not very much; 7 = very much).

2. "How much choice was the student counsellor given over which counselling instructions could be used? (1 = not very much 7 = very much).

3. "To what extent did the experimenter indicate that you would be verbally discussing your answers to the evaluation question with a team of psychologists?" (1 = not very much; 7 = very much).

4. "To what extent did you feel a need to be cautious in your interpretation of the student counsellor's performance on the counselling task?" (1 = not very much; 7 = very much)

5. "To what extent did you feel a need to be modest in your interpretation of the student counsellor's performance on the counselling task?" (1 = not very much; 7 = very much).

6. To what extent did you feel someone would evaluate your interpretation of the student counsellor's performance?" (1 = not very much; 7 = very much).

7. "To what extent was the outcome of the counselling session due to how the student counsellor delivered the

couselling instructions?" (1 = not very much; 7 = very much).

8. "To what extent was the outcome of the counselling session due to circumstances beyond the student counsellor's control?" (1 = not very much; 7 = very much).

9. "How much do you feel the student counsellor should be credited (if the student counsellor succeeded in relaxing the client) or blamed (if the student counsellor failed in relaxing the client) for the outcome of the counselling session?" (1 = should be credited a lot; 7 = should be blamed a lot).

10. "How much do you feel the student counsellor should be credited (if the student counsellor succeeded in relaxing the client) or blamed (if the student counsellor failed in relaxing the client) for the outcome of the counselling session?" (1 = not very much; 7 = very much).

11. "How personally responsible do you feel the student counsellor is for the outcome of the counselling session?" (1 = not very much; 7 = very much).

12. "How personally responsible do you feel the client is for the outcome of the counselling session?" (1 = not very much; 7 = very much).

13. "Student counselling has offered to pay the student counsellor in this session a $7.50 fee for his/her services. Indicate below the size of fee which you think the student counsellor deserves for his/her performance on the

counselling task. That is, you should reward him/her an amount consistent with how much you feel his/her performance was worth (1 = $1.50; 7 = $7.50, in one dollar increments).

Appendix A.6

Public and Private Evaluation Context Instructions

(Experiment 1)

"As you can see over your monitors the client has been dismissed from the experiment ... (instructions regarding use of response panel, etc. given) ...

PRIVATE: Please note that all aspects of your behavior and your interpretation (that is, evaluation) of the student counsellor's performance will remain completely anonymous. That is, neither I nor any of the team of psychologists associated with the study will see your answers to the questions that will appear on your screen, because your answers are being fed directly into the computer. Contrary to what you may have been told in your psychology 260 class, this is not standard operating procedure in all experiments. That is, normally in this study a team of psychologists visits each session to evaluate the entire session and the participants in it. To facilitate their evaluation, they normally verbally discuss with each participant individually, the participant's answers to the questions. Because of the time constraints involved in running the study, however, we will not do this. So, after the evaluation phase has been completed, I will dismiss each of your separately from the experiment. We will now proceed to the evaluation phase."

PUBLIC: Please note that contrary to what you may have been told in your psychology 260 class, there are some experiments where no aspect of your behavior remains anonymous. This means that no aspect of your behavior or your interpretation (that is, evaluation) of the student counsellor's performance will remain anonymous in this experiment. That is, both I and the team of psychologists associated with the study will see your answers to the questions. The team of psychologists is here now to evaluate the entire session and the participants in it. They will see your answers to the questions over the teletype machine connected to the computer into which your answers are being directed. To facilitate their evaluation, they will meet with each of you *individually* (verbal emphasis) to verbally discuss with you your answers to the questions. After this is finished, I will dismiss each of you separately from the experiment. We will now proceed to the evaluation phase."

Appendix B.1

Summary of Analysis of Variance on Recall of Verbal Discussion Manipulation Check (Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	219.010	84.437**
B (Response Order)	1	.011	<1
A X B	1	.094	<1
S(AB) (Error)	44	2.594	
C (Perceiver Role)	1	.511	<1
A X C	1	3.012	<1
B X C	1	.844	<1
A X B X C	1	.012	<1
C X S(AB) (Error)	44	1.685	

*$p \leq .05$
**$p \leq .001$

Appendix B.2

Summary of Analysis of Variance on Perceptions of Extent to which Participant would be Evaluated

(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	21.094	7.543*
B (Response Order)	1	.844	<1
A X B	1	1.760	<1
S(AB) (Error)	44	2.796	
C (Perceiver Role)	1	3.760	1.097
A X C	1	3.017	<1
B X C	1	2.398	<1
A X B X C	1	.511	<1
C X S(AB) (Error)	44	3.429	

*$p \leq .05$
**$p \leq .001$

Appendix B.3

Summary of Analysis of Variance on Feelings of Cautiousness

(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	8.760	2.369
B (Response Order)	1	3.891	1.05
A X B	1	.510	<1
S(AB) (Error)	44	3.698	
C (Perceiver Role)	1	2.344	<1
A X C	1	3.017	<1
B X C	1	.260	<1
A X B X C	1	.001	<1
C X S(AB) (Error)	44	3.384	

*$p \leq .05$
**$p \leq .001$

Appendix B.4

Summary of Analysis of Variance on Feelings of Modesty

(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	6.517	2.05
B (Response Order)	1	.510	<1
A X B	1	.260	<1
S(AB) (Error)	44	3.185	
C (Perceiver Role)	1	.010	<1
A X C	1	3.010	1.369
B X C	1	.844	<1
A X B X C	1	.844	<1
C X S(AB) (Error)	44	2.200	

*$p \leq .05$
**$p \leq .001$

Appendix B.5

Summary of Analysis of Variance on Perceptions of Choice

(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	.167	<1
B (Response Order)	1	1.500	<1
A X B	1	1.500	<1
S(AB) (Error)	44	3.076	
C (Perceiver Role)	1	1.169	<1
A X C	1	1.169	<1
B X C	1	.178	<1
A X B X C	1	.178	<1
C X S(AB) (Error)	44	2.280	

*$p \leq .05$
**$p \leq .001$

Appendix B.6

Summary of Analysis of Variance on Perceptions of Successfulness of Counselling Session

(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	.261	<1
B (Response Order)	1	2.344	2.396
A X B	1	.260	<1
S(AB) (Error)	44	.978	
C (Perceiver Role	1	.094	<1
A X C	1	.096	<1
B X C	1	.510	<1
A X B X C	1	1.260	2.260
C X S(AB) (Error)	44	.558	

*$p \leq .05$
**$p \leq .001$

Appendix B.7

Summary of Analysis of Variance on Attributions to Personal Factors

(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	6.000	3.508
B (Response Order)	1	1.089	<1
A X B	1	1.987	<1
S(AB) (Error)	44	1.710	
C (Perceiver Role)	1	1.506	<1
A X C	1	104.167	71.708**
B X C	1	3.375	<1
A X B X C	1	1.042	<1
C X S(AB) (Error)	44	1.453	

*$p \leq .05$
**$p \leq .001$

Appendix B.8

Summary of Analysis of Variance on Attributions to Situational Factors

(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	2.344	1.832
B (Response Order)	1	3.760	2.939
A X B	1	4.594	3.591
S(AB) (Error)	44	1.279	
C (Perceiver Role)	1	1.216	1.078
A X C	1	52.510	46.558**
B X C	1	1.760	1.561
A X B X C	1	1.260	1.117
C X S(AB) (Error)	44	1.128	

*$p \leq .05$
**$p \leq .001$

Appendix B.9

Summary of Analysis of Variance on Personal-Situational Attribution Index

(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	15.844	7.135*
B (Response Order)	1	1.785	<1
A X B	1	1.260	<1
S(AB) (Error)	44	2.221	
C (Perceiver Role)	1	7.594	2.839
A X C	1	304.594	113.858**
B X C	1	10.010	3.742
A X B X C	1	4.976	<1
C X S(AB) (Error)	44	2.675	

*$p \leq .05$
**$p \leq .001$

Appendix B.10

Summary of Analysis of Variance on Bipolar Measure of Credit/Blame

(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	.844	<1
B (Response Order)	1	.975	<1
A X B	1	.010	<1
S(AB) (Error)	44	1.643	
C (Perceiver Role)	1	1.260	<1
A X C	1	55.510	43.909**
B X C	1	.094	<1
A X B X C	1	10.012	7.92*
C X S(AB) (Error)	44	1.264	

*$p \leq .05$
**$p \leq .001$

Appendix B.11

Summary of Analysis of Variance on Unidirectional Measure of Credit/Blame

(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	1.760	1.513
B (Response Order)	1	3.010	2.587
A X B	1	3.567	3.064
S(AB) (Error)	44	1.164	
C (Perceiver Role)	1	.028	<1
A X C	1	90.094	66.023**
B X C	1	1.297	<1
A B X C	1	.094	<1
C X S(AB) (Error)	44	1.365	

*$p \leq .05$
**$p \leq .001$

Appendix B.12

Summary of Analysis of Variance on Perceptions of Actor Responsibility (Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	1.761	1.075
B (Response Order)	1	.094	<1
A X B	1	.260	<1
S(AB) (Error)	44	1.637	
C (Perceiver Role)	1	4.594	2.971
A X C	1	71.760	46.405**
B X C	1	7.594	4.911**
A X B X C	1	.510	<1
C X S(AB) (Error)	44	1.546	

*$p \leq .05$
**$p \leq .001$

Appendix B.13

Summary of Analysis of Variance on Perceptions of Client Responsibility (Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	.813	<1
B (Response Order)	1	5.042	2.370
A X B	1	10.667	5.015*
S (AB) (Error)	44	2.127	
C (Perceiver Role)	1	3.375	2.648
A X C	1	24.000	18.829**
B X C	1	1.509	1.183
A X B X C	1	1.042	<1
C X S(AB) (Error)	44	1.275	

*$p \leq .05$
**$p \leq .001$

Appendix B.14

Summary of Analysis of Variance on Actor-Client Responsibility Index (Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	2.344	<1
B (Response Order)	1	3.760	1.040
A X B	1	14.260	3.943[1]
S(AB) (Error)	44	3.616	
C (Perceiver Role)	1	.094	<1
A X C	1	178.760	67.636**
B X C	1	2.041	<1
A X B X C	1	3.010	1.139
C X S(AB) (Error)	44	2.643	

*$p \leq .05$
**$p \leq .001$
[1] $p = .054$

Appendix B.15

Summary of Analysis of Variance on Perceptions of Reward Deservingness (Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	.079	<1
B (Response Order)	1	16.667	9.966*
A X B	1	2.667	1.595
S(AB) (Error)	44	1.672	
C (Perceiver Role)	1	4.167	1.494
A X C	1	32.667	11.709**
B X C	1	.042	<1
A X B X C	1	.375	<1
C X S(AB) (Error)	44	2.790	

*$p \leq .05$
**$p \leq .001$

Appendix B.16

Summary of Analysis of Variance on Response Latency Measures for each Major Dependent Measure Separately[1]

(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	12.891	<1
B (Response Order)	1	.680	<1
A X B	1	32.016	<1
C (Sex)	1	119.063	1.230
A X C	1	4.383	<1
B X C	1	64.641	<1
A X B X C	1	1.088	<1
S(ABC) (Error)	40	96.805	
D (Perceiver Role)	1	563.696	6.964*
A X D	1	480.539	5.936*
B X D	1	28.359	<1
A X B X D	1	.938	<1
C X D	1	285.281	3.524
A X C X D	1	2.203	<1
B X C X D	1	195.797	2.419
A X B X C X D	1	9.375	<1
D X S(ABC) (Error)	40	80.947	
E (Type of Question)	3	640.313	27.769**
A X E	3	5.578	<1
B X E	3	136.789	5.932**
A X B X E	3	7.781	<1
C X E	3	36.703	1.592
A X C X E	3	25.011	1.093
B X C X E	3	72.836	3.159*
A X B X C X E	3	27.703	1.021
E X S(ABC) (Error)	120	23.058	
D X E	3	2.188	<1
A X D X E	3	22.042	<1
B X D XE	3	7.133	<1
A X B X D X E	3	36.266	1.490
C X D X E	3	6.594	<1
A X C X D X E	3	23.125	<1
B X C X D X E	3	17.695	<1
A X B X C X D X E	3	60.156	2.471
D X E X S(ABC) (Error)	120	24.347	

*$p \leq .05$
**$p \leq .001$

[1] In this analysis, response latencies to the four major dependent measures were included separately.

Appendix B.17

Summary of Analysis of Variance on Response Latency Measures within each Class of Judgment[1]

(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	6.442	<1
B (Response Order)	1	.334	<1
A X B	1	16.042	<1
S(AB) (Error)	44	46.150	
C (Perceiver Role)	1	281.848	6.649*
A X C	1	240.270	5.668*
B X C	1	14.186	<1
A X B X C	1	.467	<1
C X S(AB) (Error)	44	42.393	
D (Type of Question)	1	.483	<1
A X D	1	1.705	<1
B X D	1	62.862	4.762*
A X B X D	1	5.153	<1
D X S(AB) (Error)	44	13.200	
C X D	1	.176	<1
A X C X D	1	3.636	<1
B X C X D	1	5.710	<1
A X B X C X D	1	14.224	<1
C X D X S(AB) (Error)	44	14.140	

*$p \leq .05$
**$p \leq .001$
[1]In this analysis, an average response latency was computed for each class of judgment.

Appendix C.1

Mean Response Latencies to Personal Attribution, Situational Attribution, Bipolar Credit/Blame, and Reward Assignment Measures as a Function of Sex and Response Order

(Experiment 1)

Response Order X Sex	Type of Question			
	Personal Attribution	Situational Attribution	Credit/ Blame	Reward Assignment
Males				
Causal Attribution First	11.31_{abcd}	15.16_{cd}	13.42_{bcd}	7.21_{ab}
Sanctioning Evaluation First	13.38_{bcd}	11.08_{abcd}	15.52_{cd}	10.72_{abcd}
Females				
Causal Attribution First	10.29_{abcd}	12.24_{abcd}	13.94_{cd}	9.45_{abc}
Sanctioning Evaluation First	10.59_{abcd}	9.71_{abcd}	16.17_{d}	6.51_{a}

Note. The higher the mean, the longer the response latency (in secs). Means sharing no common subscripts differ significantly at the .05 level using Duncan's multiple range test.

Appendix D.1

Revised Public Instructions

(Experiment 2)

"Please note that contrary to what you may have been told in your psychology 260 class, there are some experiments where no aspect of your behavior remains anonymous. This means that no aspect of your behavior or your interpretation (that is, evaluation) of the student counsellor's performance will remain anonymous in this experiment. That is, both I and the team of psychologists associated with the study will see your answers to the questions. The team of psychologists will be here soon to evaluate the entire session and the participants in it. They will want to see your answers to the questions and, to facilitate their evaluation, they will meet with each of you *individually* (verbal emphasis) to verbally discuss with you your answers to the questions. After this is finished, I will dismiss each of you separately from the experiment. We will now proceed to the evaluation phase."

Appendix D.2

Task Difficulty Manipulation Instructions

(Experiment 2)

"Okay, as you can see over your monitors, I've dismissed the client from the experiment. As you could tell from looking at your meters and from what the client said, the client was feeling:

SUCCESS/LOW TASK DIFFICULTY: pretty relaxed by the end of the counselling session. I should tell you that, of the two hundred and some odd students that we've run in the study, I'd say about 85% of them actually succeeded in relaxing their respective clients. Now, what this means is that the counselling task--on the whole--is a pretty easy task and, hence, most people do well on it. Both the observer and the counsellor should take this into account when they evaluate the counsellor's performance. In a moment we'll go on to the evaluation phase, but before we do that, I have a couple of other points to make..." (public instructions and dependent measure instructions administered)

SUCCESS/HIGH TASK DIFFICULTY: pretty relaxed by the end of the counselling session. I should tell you that, of the two hundred and some odd students that we've run in the study, I'd say about 15% of them actually succeeded in relaxing their respective clients. Now, what this means is that the counselling task--on the whole--is a pretty

difficult task and, hence, most people don't do well on it. Both the observer and the counsellor should take this into account when they evaluate the counsellor's performance. In a moment we'll go on to the evaluation phase, but before we do that, I have a couple of other points to make..." (public instructions and dependent measure instructions administered)

SUCCESS/NO INFORMATION: pretty relaxed by the end of the counselling session. In a moment we'll go on to the evaluation phase, but before we do that, I have a couple of other points to make..." (public instructions and dependent measure instructions administered)

FAILURE/LOW TASK DIFFICULTY: pretty tense by the end of the counselling session. I should tell you that, of the two hundred and some odd students that we've run in the study, I'd say about 85% of them actually succeeded in relaxing their respective clients. Now, what this means is that the counselling task--on the whole--is a pretty easy task and, hence, most people do well on it. Both the observer and the counsellor should take this into account when they evaluate the counsellor's performance. In a moment we'll go on to the evaluation phase, but before we do that, I have a couple of other points to make..." (public instructions and dependent measure instructions administered)

FAILURE/HIGH TASK DIFFICULTY: pretty tense by the end of the counselling session. I should tell you that, of the

two hundred and some odd students that we've run in the study, I'd say about 15% of them actually succeeded in relaxing their respective clients. Now, what this means is that the counselling task--on the whole--is a pretty difficult task and, hence, most people don't do well on it. Both the observer and the counsellor should take this into account when they evaluate the counsellor's performance. In a moment we'll go on to the evaluation phase, but before we do that, I have a couple of other points to make..." (public instructions and dependent measure instructions administered)

FAILURE/NO INFORMATION: pretty tense by the end of the counselling session. In a moment we'll go on to the evaluation phase, but before we do that, I have a couple of other points to make..." (public instructions and dependent measure instructions administered).

Appendix E.1

Summary of Analysis of Variance on Perceptions of Successfulness of Counselling Session

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	744.188	1094.617**
B (Task Difficulty)	2	1.568	2.306
A X B	2	.203	<1
S(AB) (Error)	90	.680	
C (Perceiver Role)	1	.521	<1
A X C	1	.083	<1
B X C	2	2.724	4.514*
A X B X C	2	3.318	5.498*
C X S(AB) (Error)	90	.603	

*$p \leq .05$
**$p \leq .001$

Appendix E.2

Summary of Analysis of Variance on Estimated Percentage of Prior Students' Success Rate

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	6.310	25.134**
B (Task Difficulty)	2	62.344	248.329**
A X B	2	5.785	23.042**
S(AB) (Error)	89	.251	
C (Perceiver Role)	1	.129	<1
A X C	1	.623	3.025
B X C	2	.222	1.075
A X B X C	2	.469	2.274
C X S(AB) (Error)	89	.206	

*$p \leq .05$
**$p \leq .001$

Appendix E.3

Summary of Analysis of Variance on Estimates of Task Difficulty

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	75.000	38.366**
B (Task Difficulty)	2	19.271	9.858**
A X B	2	.250	<1
S(AB) (Error)	90	1.955	
C (Perceiver Role)	1	31.688	13.369**
A X C	1	24.082	10.161*
B X C	2	1.688	<1
A X B X C	2	7.271	3.068*
C X S(AB) (Error)	90	2.370	

*$p \leq .05$
**$p \leq .001$

Appendix E.4

Summary of Analysis of Variance on Perceptions of Choice

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	2.274	1.183
B (Task Difficulty)	2	.471	<1
A X B	2	2.577	1.340
S(AB) (Error)	88	1.923	
C (Perceiver Role)	1	2.724	1.604
A X C	1	6.284	3.700[1]
B X C	2	3.634	2.140
A X B X C	2	.673	<1
C X S(AB) (Error)	88	1.698	

*$p \leq .05$
**$p \leq .001$
[1] $p = .058$

Appendix E.5

Summary of Analysis of Variance on Feelings of Cautiousness

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	22.122	6.593*
B (Task Difficulty)	2	.101	<1
A X B	2	3.028	<1
S(AB) (Error)	89	3.356	
C (Perceiver Role)	1	42.781	17.149**
A X C	1	4.908	1.967
B X C	2	.886	<1
A X B X C	2	1.290	<1
C X S(AB) (Error)	89	2.495	

*$p \leq .05$
**$p \leq .001$

Appendix E.6

Summary of Analysis of Variance on Attributions to Personal Factors

(Experiment 2)

Source	df	Ms	F
A (Sex)	1	.422	<1
B (Response Order)	1	2.755	2.779
A X B	1	1.505	1.518
C (Outcome)	1	14.630	14.758**
A X C	1	.637	<1
B X C	1	4.381	4.419*
A X B X C	1	.422	<1
D (Task Difficulty)	2	.984	<1
A X D	2	2.078	2.096
B X D	2	4.818	4.860*
A X B X D	2	2.662	2.685
C X D	2	33.818	34.114**
A X C X D	2	.224	<1
B X C X D	2	.255	<1
A X B X C X D	2	.203	<1
S(ABCD) (Error)	72	.991	
E (Perceiver Role)	1	.884	<1
A X E	1	.635	<1
B X E	1	.631	<1
A X B X E	1	.256	<1
C X E	1	249.797	353.521**
A X C X E	1	1.173	1.660
B X C X E	1	2.755	3.899
A X B X C X E	1	2.790	3.946*
D X E	2	6.630	9.384**
A X D X E	2	2.287	3.236*
B X D X E	2	.897	<1
A X B X D X E	2	.224	<1
C X D X E	2	1.442	2.039
A X C X D X E	2	.140	<1
B X C X D X E	2	.005	<1
A X B X C X D X E	2	.850	<1
E X S(ABCD) (Error)	72	.707	

*$p \leq .05$
**$p \leq .001$

Appendix E.7

Summary of Analysis of Variance on Attributions to Situational Factors (Experiment 2)

Source	df	Ms	F
A (Outcome)	1	26.256	18.087**
B (Task Difficulty	2	.068	<1
A X B	2	27.130	18.689**
C (Response Order)	1	.047	<1
A X C	1	1.881	1.296
B X C	2	.297	<1
A X B X C	2	.317	<1
S(ABC) (Error)	84	1.452	
D (Perceiver Role)	1	.131	<1
A X D	1	206.254	305.629**
B X D	2	.474	<1
A X B X D	2	2.225	3.296*
C X D	1	.422	<1
A X C X D	1	4.381	6.492*
B X C X D	2	.391	<1
A X B X C X D	2	2.224	3.295*
D X S(ABC) (Error)	84	.675	

*$p \leq .05$
**$p \leq .001$

Appendix E.8

Summary of Analysis of Variance on Personal-Situational Attribution Index

(Experiment 2)

Source	df	Ms	F
A (Sex)	1	.021	<1
B (Task Difficulty)	2	1.529	<1
A X B	2	4.083	1.234
C (Response Order)	1	2.097	<1
A X C	1	.521	<1
B X C	2	4.646	1.404
A X B X C	2	10.333	3.123*
D (Outcome)	1	80.083	24.201**
A X D	1	.188	<1
B X D	2	121.083	36.592**
A X B X D	2	.187	<1
C X D	1	12.000	3.626
A X C X D	1	1.091	<1
B X C X D	2	.750	<1
A X B X C X D	2	1.271	<1
S(ABCD) (Error)	72	3.309	
E (Perceiver Role)	1	1.688	1.006
A X E	1	.333	<1
B X E	2	5.813	3.466*
A X B X E	2	6.021	3.590*
C X E	1	.098	<1
A X C X E	1	.356	<1
B X C X E	2	.271	<1
A X B X C X E	2	.146	<1
D X E	1	910.021	542.621**
A X D X E	1	.749	<1
B X D X E	2	6.395	3.813*
A X B X D X E	2	.562	<1
C X D X E	1	.187	<1
A X C X D X E	1	3.001	1.789
B X C X D X E	2	2.312	1.379
A X B X C X D X E	2	1.936	1.155
E X S(ABCD) (Error)	72	1.677	

*$p \leq .05$
**$p \leq .001$

Appendix E.9

Summary of Analysis of Variance on Attributions to Actors' Ability

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	12.000	8.767*
B (Task Difficulty)	2	.109	<1
A X B	2	32.953	24.075**
S(AB) (Error)	90	1.369	
C (Perceiver Role)	1	6.020	8.093*
A X C	1	252.082	338.934**
B X C	2	2.100	2.823
A X B X C	2	.381	<1
C X S(AB) (Error)	90	.744	

*$p \leq .05$
**$p \leq .001$

Appendix E.10

Summary of Analysis of Variance on Attributions to Task Difficulty

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	7.922	4.617*
B (Task Difficulty)	2	1.271	<1
A X B	2	10.188	5.938*
S(AB) (Error)	90	1.716	
C (Perceiver Role)	1	1.879	2.021
A X C	1	135.008	145.246*
B X C	2	2.334	2.511
A X B X C	2	5.145	5.535*
C X S(AB) (Error)	90	.930	

*$p \leq .05$
**$p \leq .001$

Appendix E.11

Summary of Analysis of Variance on Attributions to Actors' Effort

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	60.750	38.880**
B (Task Difficulty)	2	1.506	<1
A X B	2	1.984	1.270
C (Sex)	1	.521	<1
A X C	1	10.084	6.454*
B X C	2	1.099	<1
A X B X C	2	1.349	<1
S(ABC) (Error)	84	1.563	
D (Perceiver Role)	1	.188	<1
A X D	1	85.334	44.730**
B X D	2	.987	<1
A X B X D	2	1.942	1.018
C X D	1	.188	<1
A X C X D	1	1.332	<1
B X C X D	2	5.078	2.662
A X B X C X D	2	1.350	<1
D X S(ABC) (Error)	84	1.908	

*$p \leq .05$
**$p \leq .001$

Appendix E.12

Summary of Analysis of Variance on Internal-External Attribution Index (Experiment 2)

Source	df	Ms	F
A (Outcome)	1	71.297	26.878**
B (Task Difficulty)	2	1.176	.433
A X B	2	41.848	15.776*
S(AB) (Error)	90	2.653	
C (Perceiver Role)	1	5.672	2.990
A X C	1	584.505	308.169**
B X C	2	4.480	2.362
A X B X C	2	4.829	2.546
C X S(AB) (Error)	90	1.897	

*$p \leq .05$
**$p \leq .001$

Appendix E.13

Summary of Analysis of Variance on Bipolar Measure of Credit/Blame

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	148.756	135.728**
B (Task Difficulty)	2	24.021	21.918*
A X B	2	4.521	4.125*
C (Response Order)	1	.881	<1
A X C	1	1.879	1.714
B X C	2	.333	<1
A X B X C	2	2.896	2.643
S(ABC) (Error)	84	1.096	
D (Perceiver Role)	1	178.256	371.435**
A X D	1	.879	1.831
B X D	2	1.271	2.647
A X B X D	2	.146	<1
C X D	1	1.504	3.134
A X C X D	1	.008	<1
B X C X D	2	.271	<1
A X B X C X D	2	.082	<1
D X S(ABC) (Error)	84	.480	

*$p \leq .05$
**$p \leq .001$

Appendix E.14

Summary of Analysis of Variance on Rescaled Measure of Credit/Blame

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	23.381	21.333**
B (Task Difficulty)	2	4.521	4.126*
A X B	2	24.021	21.917**
C (Response Order)	1	1.881	1.716
A X C	1	.879	<1
B X C	2	2.896	2.642[1]
A X B X C	2	.334	<1
S(ABC) (Error)	84	1.096	
D (Perceiver Role)	1	.881	1.835
A X D	1	178.254	371.431**
B X D	2	.146	<1
A X B X D	2	1.271	2.649[1]
C X D	1	.004	<1
A X C X D	1	1.508	3.142[1]
B X C X D	2	.084	<1
A X B X C X D	2	.270	<1
A X D(ABC)	84	.480	

*$p \leq .05$
**$p \leq .001$
[1] $p \leq .08$

Appendix E.15

Summary of Analysis of Variance on Perceptions of Actor Responsibility (Experiment 2)

Source	df	Ms	F
A (Outcome)	1	24.083	14.331**
B (Task Difficulty)	2	3.349	1.993
A X B	2	37.443	22.280**
S(AB) (Error)	90	1.681	
C (Perceiver Role)	1	.184	<1
A X C	1	229.685	390.953**
B X C	2	2.685	4.654*
A X B X C	2	.392	<1
C X S(AB) (Error)	90	.587	

*$p \leq .05$
**$p \leq .001$

Appendix E.16

Summary of Analysis of Variance on Perceptions of Client Responsibility (Experiment 2)

Source	df	Ms	F
A (Outcome)	1	50.020	31.508**
B (Task Difficulty)	2	.141	<1
A X B	2	.537	<1
S(AB) (Error)	90	1.587	
C (Perceiver Role)	1	1.332	<1
A X C	1	150.523	79.339**
B X C	2	.256	<1
A X B X C	2	4.941	2.605
C X S(AB) (Error)	90	1.897	

*$p \leq .05$
**$p \leq .001$

Appendix E.17

Summary of Analysis of Variance on Actor-Client Responsibility Index

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	4.688	1.284
B (Task Difficulty)	2	4.849	1.328
A X B	2	38.297	10.486**
S(AB) (Error)	90	3.652	
C (Perceiver Role)	1	2.521	<1
A X C	1	752.083	233.859**
B X C	2	1.349	<1
A X B X C	2	7.130	2.217
C X S(AB) (Error)	90	3.216	

*$p \leq .05$
**$p \leq .001$

Appendix E.18

Summary of Analysis of Variance on Perceptions of Actors' Reward Deservingness

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	300.000	295.168**
B (Task Difficulty)	2	7.693	7.569**
A X B	2	5.922	5.827*
C (Response Order)	1	1.021	1.005
A X C	1	1.334	1.313
B X C	2	2.442	2.403
A X B X C	2	.317	<1
S(ABC) (Error)	84	1.016	
D (Perceiver Role)	1	221.021	290.658**
A X D	1	4.084	5.371*
B X D	2	2.192	2.883
A X B X D	2	.067	<1
C X D	1	.188	<1
A X C X D	1	1.332	1.752
B X C X D	2	1.172	1.541
A X B X C X D	2	.318	<1
D X S(ABC) (Error)	84	.760	

*$p \leq .05$
**$p \leq .001$

Appendix E.19

Summary of Analysis of Variance on Response Latency Measures[1]

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	14.750	0.279
B (Task Difficulty)	2	44.234	0.836
AB	2	106.383	2.012
C (Response Order)	1	5.563	0.105
AC	1	4.859	0.092
BC	2	0.313	0.006
ABC	2	167.656	2.170*
D (Sex)	1	115.234	2.179
AD	1	2.047	0.039
BD	2	35.336	0.668
ABD	2	31.063	0.587
CD	1	115.344	2.181
ACD	1	48.188	0.911
BCD	2	58.227	1.101
ABCD	2	20.219	0.382
S(ABCD)(Error)	72	52.881	
E (Perceiver Role)	1	2.016	0.039
AE	1	4.469	0.087
BE	2	19.320	0.375
ABE	2	2.180	0.042
CE	1	88.797	1.725
ACE	1	60.250	1.171
BCE	2	55.578	1.080
ABCE	2	118.055	2.294
DE	1	8.688	0.169
ADE	1	4.734	0.092
BDE	2	83.484	1.622
ABDE	2	16.891	0.328
CDE	1	41.813	0.812
ACDE	1	4.594	0.089
BCDE	2	36.406	0.707
ABCDE	2	27.836	0.541
E X S(ABCD) (Error)	72	51.467	

(Continued)

Appendix E.19 (continued)

Summary of Analysis of Variance on Response Latency Measures[1]

(Experiment 2)

Source	df	Ms	F
F (Type of Question)	3	484.625	29.551**
AF	3	6.344	0.387
BF	6	8.445	0.515
ABF	6	24.693	1.506
CF	3	13.083	0.798
ACF	3	17.854	1.089
BCF	6	54.104	3.299*
ABCF	6	2.810	0.171
DF	3	26.656	1.625
ADF	3	53.635	3.271*
BDF	6	26.456	1.613
ABDF	6	23.245	1.417
CDF	3	1.385	0.084
ACDF	3	9.042	0.551
BCDF	6	11.711	0.714
ABCDF	6	9.880	0.602
F X S(ABCD) (Error)	216	16.400	
EF	3	18.938	1.248
AEF	3	7.948	0.524
BEF	6	21.583	1.423
ABEF	6	19.760	1.303
CEF	3	8.188	0.540
ACEF	3	4.901	0.323
BCEF	6	9.865	0,650
ABCEF	6	20.536	1.354
DEF	3	11.807	0.778
ADEF	3	23.115	1.524
BDEF	6	11.193	0.738
ABDEF	6	11.102	0.732
CDEF	3	11.792	0.777
ACDEF	3	15.339	1.011
BCDEF	6	42.070	2.773*
ABCDEF	6	14.438	0.952
E X F X S(ABCD) (Error)	216	15.170	

*$p \leq .05$
**$p \leq .001$

[1]In this analysis, response latencies to each major dependent measure were included.

Appendix F.1

Mean Personal Attributions partitioned by Sex, Perceiver Role, and Task Difficulty

(Experiment 2)

	Sex			
	Males		Females	
Task Difficulty	Actor	Observer	Actor	Observer
High	4.56_{ab}	5.44_{b}	4.95_{ab}	5.00_{ab}
Low	5.25_{b}	4.13_{a}	5.44_{b}	4.96_{ab}
No Information	4.75_{ab}	4.94_{ab}	4.82_{ab}	4.50_{ab}

Note. The higher the mean, the greater the personal attribution. Means sharing no subscripts in common differ significantly at the .05 level using Duncan's multiple range test.

Appendix F.2

Mean Personal Attributions partitioned by Sex, Perceiver Role, Outcome, and Response Order

(Experiment 2)

	Actor		Observer	
	Success	Failure	Success	Failure
Causal Attribution Last				
Male	6.67_{d}	2.92_{a}	3.92_{ab}	6.00_{cd}
Female	6.75_{d}	3.75_{ab}	4.42_{b}	5.67_{cd}
Causal Attribution First				
Male	5.92_{cd}	3.94_{ab}	3.75_{ab}	5.69_{cd}
Female	6.17_{cd}	3.58_{ab}	3.75_{ab}	5.42_{c}

Note. The higher the mean, the greater the personal attribution. Means sharing no subscripts in common differ significantly at the .05 level using Duncan's multiple range test.

Appendix F.3

Mean Personal-Situational Attribution Index Scores partitioned Sex, Perceiver Role, and Task Difficulty (Experiment 2)

	Male		Female	
Task Difficulty	Actor	Observer	Actor	Observer
High	$.689_b$	1.375_b	$.813_b$	$.627_b$
Low	1.313_b	$-.188_a$	1.250_b	1.000_b
No Information	$.500_b$	1.000_b	$.625_b$	$.250_b$

Note. More positive scores reflect a higher personal than situational attribution. Means sharing no subscripts in common differ significantly at the .05 level using Duncan's multiple range procedure.

Appendix F.4

Mean Personal-Situational Attribution Index Scores partitioned by Sex, Task Difficulty, and Response Order (Experiment 2)

	Causal Attribution First		Causal Attribution Last	
Task Difficulty	Males	Females	Males	Females
High	1.44	.69	.63	.75
Low	.56	.44	.56	1.81
No Information	.19	.69	1.31	.19

Note. More positive scores reflect a greater personal than situational attribution.

Appendix F.5

Mean Response Latencies as a function of Outcome, Sex, and Type of Question

(Experiment 2)

	Type of Question			
Sex X Outcome	Personal Attribution	Situational Attribution	Credit/ Blame	Reward Deservingness
Males				
Success	5.31	7.16	7.99	4.60
Failure	4.00	7.19	8.29	4.06
Females				
Success	5.63	8.12	8.93	5.07
Failure	7.27	6.74	7.72	5.31

Note. The higher the mean, the longer the response latency (in secs).

Appendix F.6

Mean Response Latencies as a Function of Response Order, Perceiver Role, Sex, Task Difficulty, and Type of Question

(Experiment 2)

	Response Order X Perceiver Role X Sex							
	Causal Attribution First				Causal Attribution Last			
Task Difficulty X	Actor		Observer		Actor		Observer	
Type of Question	Males	Females	Males	Females	Males	Females	Males	Females
Personal Attribution								
High	2.38	3.46	1.25	5.75	6.22	7.92	5.27	5.71
Low	3.87	8.48	6.88	8.12	3.51	5.22	4.94	5.13
No Information	4.30	6.74	4.62	6.89	6.44	8.49	6.15	5.48
Situational Attribution								
High	8.72	1.86	6.21	11.24	6.24	5.51	10.04	5.69
Low	6.30	10.12	6.32	4.93	5.85	8.32	6.71	8.70
No Information	6.03	8.00	8.11	10.85	8.12	8.32	6.44	5.66
Credit-Blame								
High	8.36	7.80	7.99	8.54	7.91	10.28	7.56	6.73
Low	5.75	7.98	6.55	7.29	5.80	11.95	9.15	7.86
No Information	7.24	9.28	9.28	9.21	13.87	7.45	8.21	5.55
Reward Deservingness								
High	4.29	5.72	4.97	8.27	5.04	3.23	2.12	5.26
Low	4.20	5.21	3.57	3.93	3.82	5.42	4.28	4.62
No Information	3.84	6.21	3.40	5.78	6.36	5.23	6.07	3.39

Note. The higher the mean, the longer the response latency (in secs).